

SCHOLASTIC COACH

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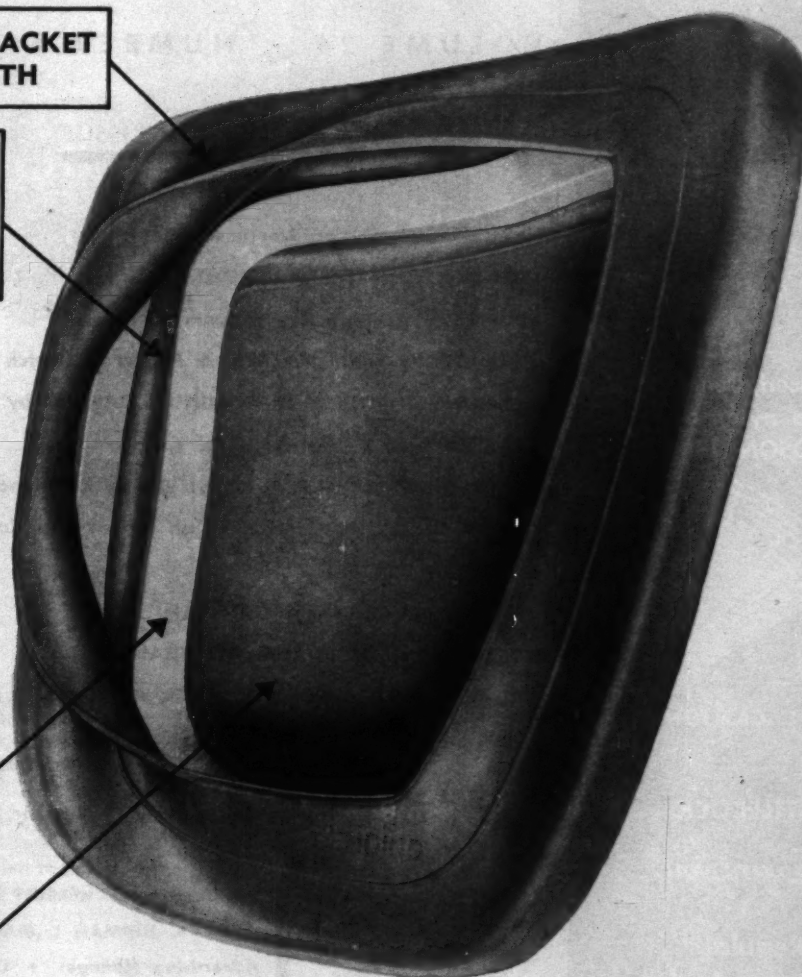
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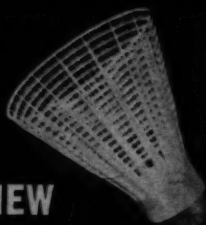
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VOLUME 24 • NUMBER 6 • FEBRUARY

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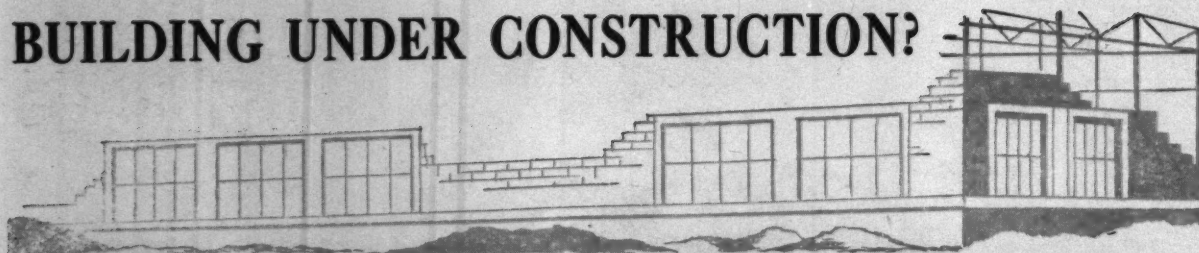
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Here
Below

Sliding down the Bannister

NO athlete in our time has so utterly captivated the universe as the fabulous Roger Bannister. The first miler in history to break through the four-minute barrier, the lanky Britisher has beguiled the world with his humility, intelligence, and just plain *niceness*.

Bannister isn't just a great athlete. He's a great gentleman. And his contributions to the cause of amateurism may be considered just as significant as his endowments to the running of the mile.

As Ken Doherty points out in his superb article on pages 12-13, "the greatest significance of Bannister is not just that he was the first to break four minutes for the mile... That someone would do so was a foregone conclusion... Rather his significance in sports lies in the fact that he is the perfect amateur and still beats the world.

"Few realize how important this is in the present stage of world sport. Never before has there been such great emphasis upon devoting unlimited time, energy, and interest upon training... No questions are asked as to the means, so long as the end—national glory—is achieved."

Then along comes a fellow like Bannister, an athlete with a wholesome perspective on life who competes strictly for fun and exercise and who never permits his sport to interfere with his studies or his natural course of living.

"At first consideration," writes Doherty, "this may seem disturbing to accepted coaching procedure. How can we place the example of Bannister before our young track prospects: a man who misses practice occasionally, a man who feels he can afford only 45 minutes a day for practice, a man who went rock-climbing in Scotland just three weeks before his greatest opportunity, a man who could permit himself to celebrate his greatest triumph by a night-long (though innocent) revel?"

But, as Doherty perspicaciously concludes, these very "weaknesses" should be the cause of great encouragement and even elation within the coaching profession and the amateur sports world as a whole. But this is enough of a trailer. Turn to page 12 and read the entire Bannister story for yourself.

OUR picture sequence of Bannister, by the way, represents a real scoop. As far as we know, it's the only picture sequence from Bannister's epochal 3:59.4 mile ever to see print.

We're deeply beholden to the British Information Services for making this sequence available to us. It's taken from the B.I.S.'s 16-mm. film of that historic mile

race, entitled *Bannister's 4-Minute Mile*.

To make the necessary enlargements for *Scholastic Coach*, the B.I.S. had to send to England for a special 35-mm. print of the film. Upon its arrival in the U.S., the film was run off exclusively for us and we were permitted to strip out any part we wanted!

The original 16-mm. film, incidentally, is available at a rental of \$1.50 per day. It's a beauty of a film and you'll be fascinated by it. For information about it, refer to the B.I.S. offer on page 40.

ONE of the most enchanting bits in the film (*Bannister's 4-Minute Mile*) occurs close to the end. As you probably know, Bannister
(Concluded on page 45)

*...ed on or two
minor errors and would greatly
appreciate a copy of the article when
published. If you should be also
able to get me a copy of the article
& in Research Guide Vol 2. no 2 June 1955
I should be most grateful*

Yours sincerely,

Roger Bannister

A personal note from our hero, Roger Bannister, informing us that he "would greatly appreciate a copy of the article when published," as well as a copy of one of the references cited by the author, Ken Doherty, Penn track coach.

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New Cooperstown Flannel
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What's more, not one of these 5 fine Wilson flannels will lose looks or shape even when sweated up... and every one of them is more comfortable than a 10-run lead. Talk to your Wilson salesman about 'em, first chance you get.

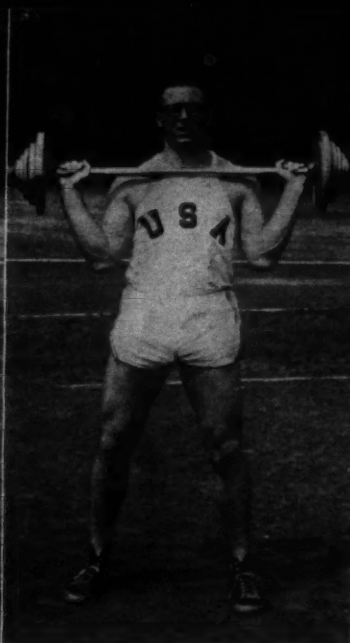
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EXERCISE 1 (Lift and Press): With barbell on floor, bend chest (2). Press bar rapidly overhead (3). Lower rapidly, feet apart, and grasp bar (1). Lift rapidly to chest (4). Repeat 5-10 times. Lower to floor.

COACHES of weight throwers have a tendency to overestimate many of their candidates. Because a boy is big, they're too ready to assume he must be strong.

This doesn't always follow. The boy may be stronger than average, but he may not be as strong as he should or could be. And this can play a vital role in his success. For success in weight throwing is largely predicated on strength. The stronger the athlete, the better are his chances for success—all other things being equal.

At the annual clinic of the IC4A Coaches Assn. last fall, the problem of strength development was expounded by Bernie Mayer, former national shot-put champion. He spoke on a trend that had already produced one world mark and was to lead to several more during the ensuing months.

This trend, which is rapidly mushrooming, is the use of weights (bar-bells) to develop strength. Many track coaches have been reluctant to accept this concept, and it is hoped that this article will crystallize their thinking. I propose to do three things:

First, offer an anatomical explanation of what occurs in muscle as a result of the additional work.

Second, disclose the weight-training programs of the three men who set world records during the past year—namely, Parry O'Brien, Fortune Gordien, and Bob Backus.

Third, suggest a program for the average youngster interested in building all-around strength for track.

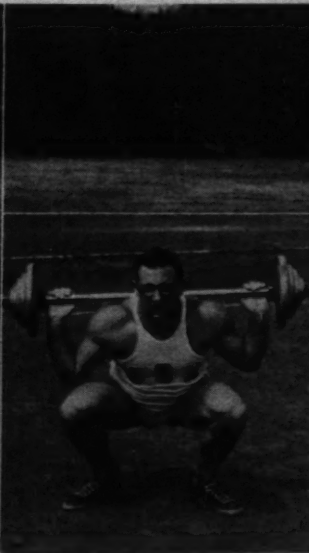
Weight Training for Weight Men

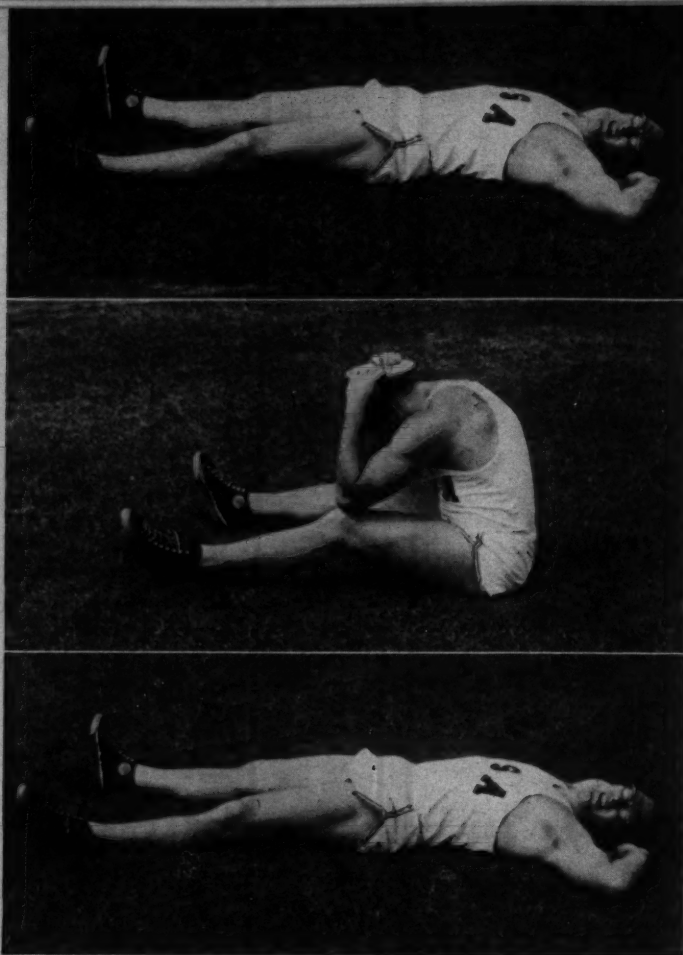
By IRVING L. KINTISCH

Assistant Track Coach, Manhattan College

Demonstrated by Stan Lampert

EXERCISE 2 (Full Squat): With bar resting behind neck, feet shoulder-width apart, toes pointed out (1), squat with knees apart soles flat on floor (2). Recover to upright position (3). Repeat 10 times. (This is a deep knee bend.)





EXERCISE 3 (Sit-Ups): Lying on back, barbell plate held behind neck with both hands (1), raise trunk upward and forward, elbows touching knees (2). Lower trunk backward and downward to floor (3). Repeat exercise 5-10 times, keeping legs as straight as possible.

EXERCISE 5 (Shoulder Shrugs): Holding bar in front of thighs, regular grip but slightly narrower than shoulder width (1), raise shoulders, lifting weight without bending elbows (2). Lower to starting position (3). Repeat 5-10 times—watching those elbows.

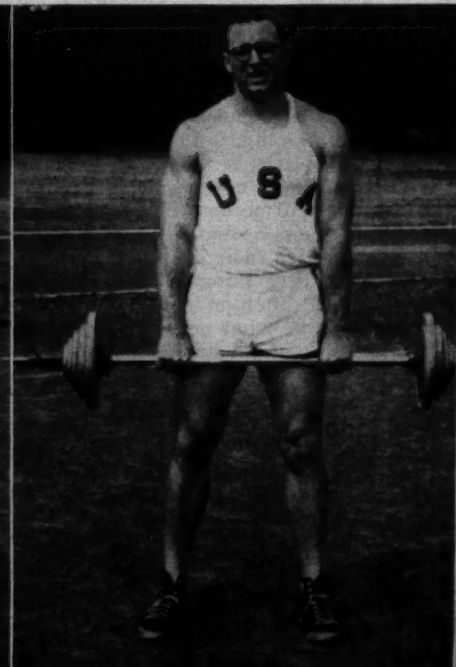
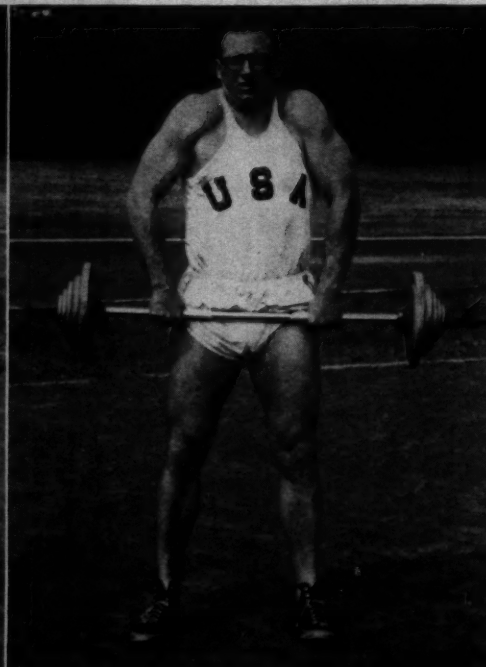
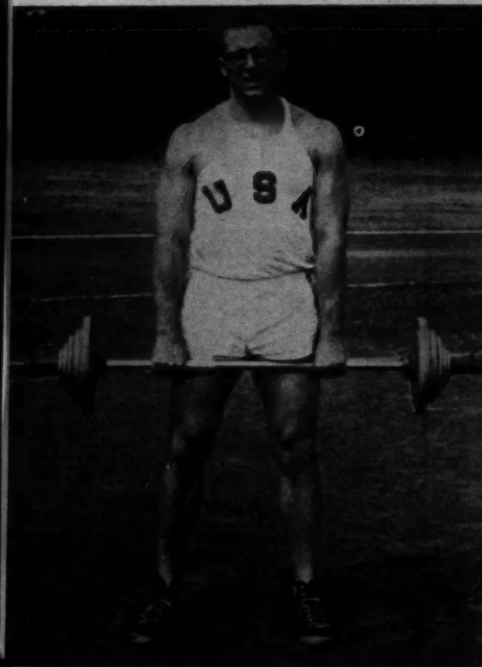
A precautionary word is necessary here. *Weight lifting should never replace the throwing of the implement involved.* The athlete must still dedicate himself to the almost endless task of developing the skills and coordinations so necessary for success. It is the combination of this skill plus the added strength that may make the mediocre performers of today the champions or near champions of tomorrow.

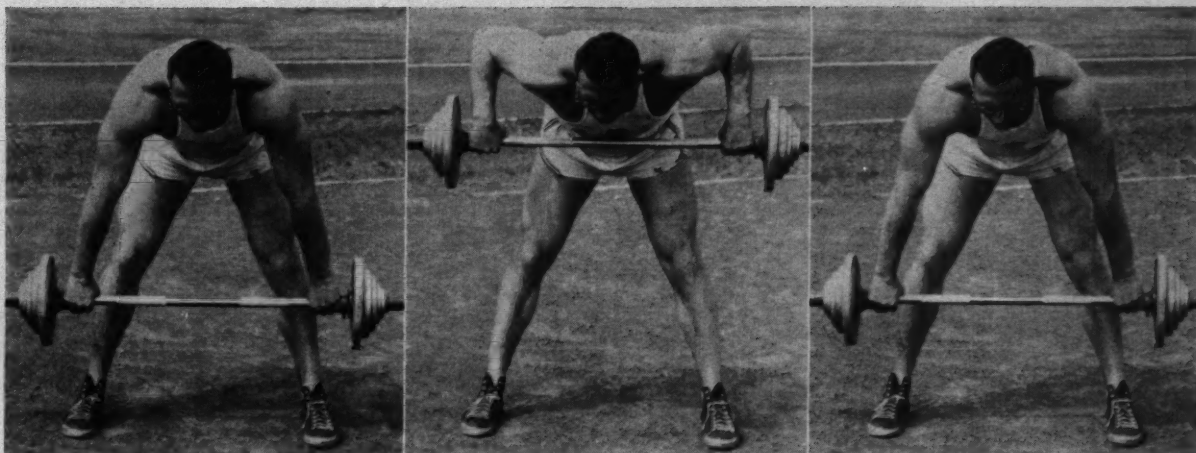
To understand how strength in a muscle may develop, it's important to first understand the structure of muscle.

About 75 of some 200 pairs of muscles in the body concern themselves with the maintenance of posture and locomotion. These muscles vary in size and shape. Each is composed of thread-like fibers, the number of fibers varying from six to several hundred thousand.

The muscle cells are long and very narrow, hence the term fiber. Each fiber is ensheathed by a delicate membrane called a sarcolemma. These fibers are massed together in bundles which in turn are bound together into larger masses.

Work is done by the muscle when it changes form by shortening. As each muscle fiber shortens, it swells out laterally. The sarcolemma and the connective tissues surrounding the fibers become stretched, thereby making it hard to the touch. Heavy





EXERCISE 4 (Rowing Motion-Half Bend Forward): With trunk bent forward, knees and back straight, raise bar

off floor hands fully extended (1). Raise until it touches chest (2). Lower to starting position (3). Repeat 10 times.

muscular work done with some degree of regularity will tend to thicken and toughen the sarcolemma.

It is an accepted physiological fact that muscles will increase in size and strength with regular and strenuous exercise. It's necessary for a muscle to work close to its capacity load in order to develop in strength.

What actually occurs is that unused fibers or fibers that are small because of little use are brought into play. They develop due to the increased demand placed upon them. The amount of strength to be gained will be limited by the athlete's anatomical structure.

Karpovich¹ explains that "a person with small bones or a tall skinny individual will reach the limit

of development before a stocky man with large bones attains the limit." He indicates no reason for this. This strength can be measured by the amount of weight resistance the athlete can overcome.

Every physiologist agrees that in order to develop additional strength, the exercise must be conducted against increased weight resistance. As the amount of weight resistance that can be overcome increases, so does the strength. Mere repetitions of the exercise will increase endurance but not strength. Through training, an athlete can develop the strength to lift heavier and heavier weights.

Every athlete will admit to doing at least a minimum amount of certain strenuous exercises to develop

strength for his particular event. They will perform push-ups, chins, dips on parallel bars, rope climbing, sit-ups, and any number of favorite strenuous activities designed to build strength.

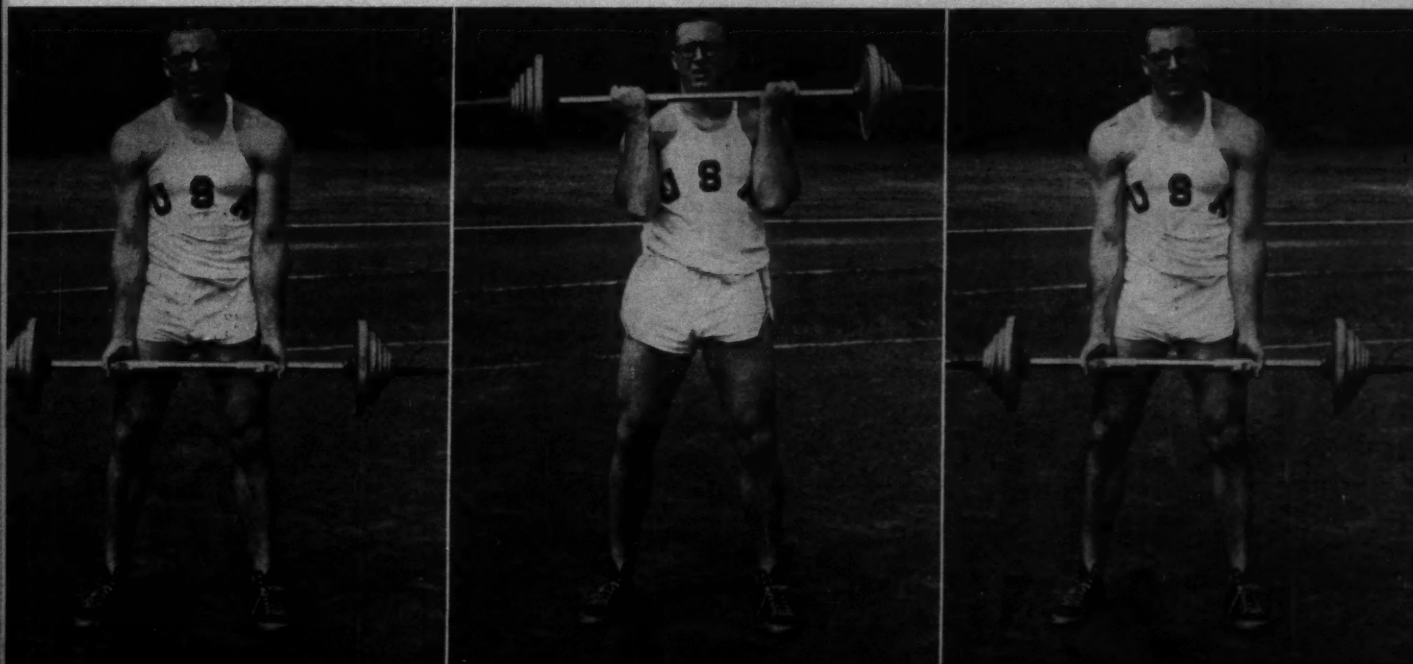
What they're doing is adding resistance to a muscular movement which for the most part is limited to all or part of the body's weight. The value of bar-bells lies in providing additional resistance beyond the body weight as the need for more strength arises.

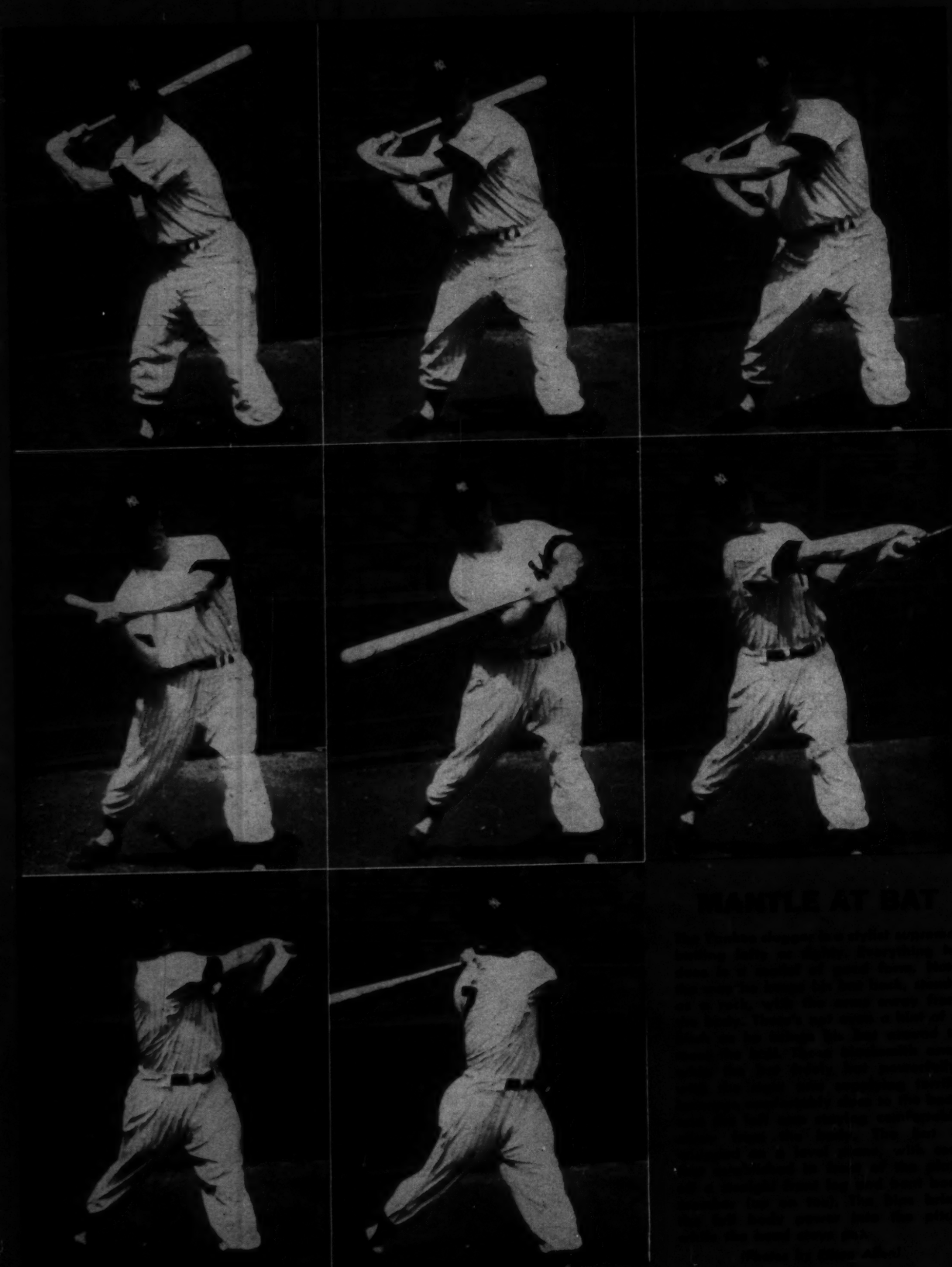
Coaches opposed to weight training contend that the athlete "often becomes musclebound and loses his speed. Ken Doherty, head coach at Pennsylvania, believes that a relationship between strength and speed

(Continued on page 26)

EXERCISE 6 (Curls): Holding bar in front of thighs reverse grip (1), raise bar to chest, bending elbows (2).

Lower bar to starting position (3). Repeat 5-10 times. Don't sway body or jerk elbows backward to assist lift.





BATTLE AT BAT

The Yankees' champion slugger, **GEORGE CATHCOTE**, is shown in a series of eight photographs illustrating his batting technique. The sequence captures the player from the ready stance to the follow-through, highlighting the power and precision of his swing. The player is wearing a light-colored uniform with dark pinstripes on the pants and a dark belt. The background is dark, making the player stand out.

Evaluating Your Hitters

WHICH is more important to you: (1) the boy with the high batting average, (2) the boy who "gets on" the most, or (3) the lad who drives in the greatest number of runs?

Obviously, they're all valuable and perhaps for different reasons. Therefore, you arrange your batting order to best exploit the capabilities of each individual.

At Bates College, we think the the percentage of runs driven in, percentage of getting on base, and batting percentage are of equal importance. Therefore, we have developed what we call the "Bates Batting—Individual Standing System."

In this system, our "Batting Champion" is not the man with merely the highest batting average, but the player with the highest combined percentages in the three aforementioned phases of hitting.

First, consider *Runs Batted In*. Some would disagree on who is more valuable—the man who drives in the most runs, the man who drives in the greatest percentage of runs with the opportunities afforded him, or the man who drives in the runs when the score is close.

The major leaguers certainly seem to emphasize the *number* of runs driven in. To my knowledge, from reading published statistics and figures, they're not concerned with the percentage or the score of the game when runs are driven in.

While we're interested in the total runs batted in, we're even more anxious to know the man's percentage (total number as compared to opportunities) and especially how many "crucial" runs he has batted in.

In other words, we feel it is more to a man's credit to drive in the

By **ROBERT W. HATCH**

Baseball Coach, Bates College

tying or winning run than to knock in the 15th run of a "walk away." Consequently, we give twice as much credit for driving in a run that puts us within one run of a tie, or a run that ties the game, or the run that puts us one ahead, than for any other runs.

On the other hand, we "charge" twice as much for failure to drive in these same runs. The only time we "charge" a man with an opportunity to drive in a run is when there's a man on 2nd or 3rd base. He's never charged for an opportunity with a man on 1st or no one on. However, if he drives a run in from 1st or hits a home run, we then "charge" him with the opportunity and give him credit, of course.

An example of our "crucial" run idea would be this: Men on 2nd and 3rd, score 2-0 against us. Both these runs are deemed "crucial" because the man on 3rd will put us

within one run of a tie and the man on 2nd will tie the game.

The scorekeeper will mark four **X X X X** next to the batter's name.

Underlining of a pair of **X X** indicates one crucial run opportunity which actually counts two.

If the batter drives in one of the runs, the scorekeeper will circle two **XX XX**, indicating the batter had four opportunities and drove in two. If he does not drive in either man, the four X's are left and he is "charged" with four opportunities and no runs driven in, etc.

In this same situation, had the batter hit a home run he would be credited with 6 for 6 because his own run would put us one run ahead—**XX XX XX XX** (each pair of **XX** being circled).

Compare this same situation if the score were 10-0. The scorekeeper then marks two **XX** opposite the batter's name. If one run is driven in, he will circle one **X X**. If the

(Continued on page 38)

| Bates Batting . . . Individual Standing | | | | | | |
|---|-------------------|----------------|--------------|-----------------|------------|-----------------|
| Total Score | Rating of Hitters | Runs Batted In | % | Getting on Base | % | Batting Average |
| 121 | MURKINS | 1 | 32-15-21 (1) | 38 | 18-41 (2) | .315 (3) |
| 92 | MORTON | 2 | 25-9-13 (2) | 32 | 25-15 (3) | .314 (1) |
| 85 | KRAIA | 3 | 31-2-2 (3) | 10 | 34-11 (1) | .313 (2) |
| 70 | BURKE | 4 | 35-1-7 (4) | 13 | 31-12 (4) | .313 (5) |
| 76 | BEARN | 5 | 27-1-3 (5) | 11 | 29-31 (7) | .316 (2) |
| 71 | AWATER | 6 | 14-3-6 (7) | 8 | 26-11 (7) | .316 (4) |
| 67 | SCHROEDER | 7 | 24-5-5 (7) | 21 | 24-31 (5) | .318 (3) |
| 67 | SCHROEDER | 7 | 9-1-1 (8) | 11 | 19-36 (9) | .312 (7) |
| 44 | PURDY | 8 | 14-2-3 (8) | 12 | 22-36 (8) | .319 (10) |
| 55 | HALL | 10 | 33-4-6 (6) | 17 | 17-21 (6) | .315 (8) |
| 45 | KENNY | 11 | 22-0-0 (11) | 100 | 19-41 (10) | .315 (9) |

The Bates' batting evaluation chart is self-explanatory. In the RBI column, the first figure represents opportunities, the second figure actual runs batted in, and the third figure the total rbi's, including crucial runs. The Total Score (first column) is arrived at by adding all the percentages.



ROGER BANNISTER is one of the most fascinating and significant paradoxes in the history of track and field. He consistently places his work in medicine and surgery above all other considerations, including training for running. And he's the despair of English coaches who, since about 1946, have been trying (with marked success) to persuade English runners to follow the unlimited-work methods of Zatopek.

Bannister, despite his international popularity since 1950, has never yielded to the blandishments of the track promoters. He has picked his trips not so much for their glamor as for their convenience—for the way they fitted into his rigorous study program.

And through it all, he has enjoyed living—taking vacations when his advisory coaches would have preferred hard training, and going to occasional parties when they would have tucked him into bed.

Yet today he's acclaimed as the greatest of all milers, with two races under four minutes to his credit and a tremendous victory over John

Landy, the world's record-holder!

At first consideration, all this may seem disturbing to accepted coaching procedures and training practices. How can we place the example of Bannister before our young track prospects: a man who misses practice occasionally, a man who feels he can afford only 45 minutes of time each day for practice, a man who went rock-climbing in Scotland just three weeks before his greatest opportunity, a man who could permit himself to celebrate his greatest triumph by a night-long (though innocent) revel?

But, looking deeper, these very "weaknesses" should be the cause of great encouragement and even elation within the coaching profession and the amateur sports world as a whole.

Until Bannister came along, professionalism had taken a stranglehold on distance running, not so much in the sense of unlimited financial reward, but in the equally important meaning of unlimited time and energy devoted to the sport. The key to better running lay in more and more and more run-

ning, without regard for more primary considerations such as one's vocation.

If Zatopek ran 60 quarter-miles at about a 60-second pace during a single workout, the man to beat him, it was felt, would have to run 70 such quarters. But fortunately along came Bannister who . . . but let us review the facts of his training and then draw our own conclusions.

Undoubtedly, the most reliable record of Bannister's training is that printed in the *Athletics World*, May, 1954, by Norris McWhirter, close friend of Bannister and one of track's most careful statisticians and historians.

The following statements (by McWhirter) are consistent with that recorded in other track journals and with all that the writer has learned through close contact with Bannister, both in Philadelphia when he was training for the 1951 Pennsylvania Relays and in England last June:

Knowing full well the brilliance of Australia's John Landy and that the Californian (surely they meant

By **KEN DOHERTY**, *Track Coach, U. of Pennsylvania*

Breaking Through the 4-minute



"Kansan"—Ed.) season starts two months before ours, Roger's hopes were never very buoyant. None the less he trained hard through the bleak winter on some of the more obscure of London's 22 loose and dusty tracks. . . . As the plan began to take shape in early April, Roger had not yet produced a $\frac{3}{4}$ mile time trial (always his barometer of condition) within nine seconds of that fabulous 2:52.9 of July 1952. But actually he had more training and strengthening work under his belt than ever before. . . .

Bannister's training methods are something upon which little has been written because little can be known. This is not only because his 4 or 5 times weekly dashes to London's more unfrequented tracks occur at unpredictable times, when he can squeeze in an hour away from St. Mary's hospital. It is also because as a physiologist he has a genuine dislike to mislead fellow athletes into thinking that his purely personal methods of training have any scientifically acceptable basis for anyone else.

Though perhaps more conscious than any other athlete that he is merely groping in an uncharted desert, he in fact uses quite conventional methods. This is not because he for a moment accepts their soundness, but because, in the absence of even a vestige of acceptable evidence, he finds them neither

BANNISTER RUNNING THE FIRST FOUR-MINUTE MILE!

The fabulous Roger Bannister is shown tearing down the home stretch, with all stops out, in his historical 3:59.4 effort last May. Taken from the official film of the race, this exclusive strip clearly exhibits the tremendous power unleashed by Bannister over the last 300 yards. He's going "all out" in every sense of the term. His face reflects strain, but he's holding his form. His chest is up and his arms and legs are working powerfully. Bannister is a power rather than a "picture" runner with an uncanny knack of getting the last fraction of an inch out of every effort. (Courtesy of British Information Services)

better nor worse than other methods that require longer sessions.

For the last two winters he has come to the conclusion that "interval running" is quite a rewarding system of training because of its punishing intensity and infinite flexibility. He is hoping that it will provide a firmer base upon which competition will have less of a wearing-down effect, though he seems to despair of it ever having the building-up effect that it has on others. (Landy, for example—Ed.) His favorite (if that word can be used) combinations are 15 times 150 yards, 10 times 440 yards, 3 times 880 yards, or 2 times 3 laps. . . . Long, slow warm-ups play no part in his scheme of things. Neither do vitamins nor any other dieting fads.

In the event of Bannister's achieving anything spectacular on the debut of his ninth season at Oxford on May 6th (this will depend largely upon the kindness of the wind), it may be of almost historic importance to list his immediate preparation.

Monday, April 12: 7 times 880 yards at an average of 2:10, with 3 minutes rest between each.

Wednesday, April 14: $\frac{3}{4}$ mile solo—3:02 (laps 61, 61, 60).

Thursday, April 15: 880 in 1:53 solo.

Fri. to Mon., April 16-19: Rock-climbing in Scotland.

Thursday, April 22: 10 times 440 yards (average—58.9). First—56.3; last—56.3.

Saturday, April 24: $\frac{3}{4}$ mile in 3:00 in company with Chataway.

Monday, April 26: $\frac{3}{4}$ mile in

3:14; 8 minutes rest; $\frac{3}{4}$ mile in 3:08.6.

Wednesday, April 28: $\frac{3}{4}$ mile solo in 2:59.9 in high wind.

Friday, April 30: Final 880-yard time trial—1:54.

May 1 to May 6: Rest. Six days!

So much for the physical aspects of training, sketchy as they may seem, but there remains the all too often neglected mental training as well. For this, the most reliable as well as intelligent contact seems to have been made by Lloyd Percival, who reported an interview with Bannister in the *Research Guide*, June, 1954.

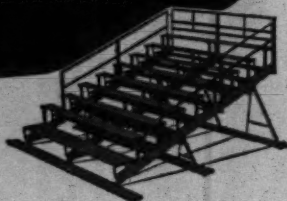
I prepared myself mentally in a very careful and concentrated fashion. To my mind, the necessary mental attitude to make an all-out effort—as this was—could only be developed by refusing to let anything detract from the task ahead. I tried my best to center my thoughts only on my objective. I built up this attitude for weeks previous to the race. . . .

I approached this race with the thought that this is the only chance I will have—there must be no let-up! I reminded myself constantly that the others (Santee and Landy) were getting closer and closer.

I tried to establish this "now or never" attitude because I knew that unless I was successful in attaining this attitude or mental stance, I would perhaps spoil my attempt by letting myself fall prey to the mental reaction so common

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to athletes: that is, thinking that there would always be a next time or deciding, perhaps, that this was not the day when things became difficult and muscles began to ache from the strain.

You see, unless there is a kind of mental attitude such as I tried to develop, it is too easy to lose your desire. I ran with complete abandon and thought only that it must be now. (The italics are mine—Ed.)

So much for the so-called facts of Bannister's training and great running, but what is their meaning for American runners? Note that from this point on it is a matter of interpretation, and by the writer only. Someone else might use the same facts and draw quite different conclusions.

To the writer, the greatest significance of Bannister is not just that he was the first to break four minutes for the mile, wonderful as that was. That someone should do so, and soon, was a foregone conclusion, just as it was that Bannister's new record would be exceeded and that, before too long a time, a third runner will do even better than Landy's 3:58.

By comparison with his peers, Bannister is not nearly as outstanding an athlete as is Parry O'Brien in the shot put or Cornelius Warmerdam in the pole vault. Rather his significance in sports lies in the fact that he is the perfect amateur and still beats the world.

Few realize how important this is in the present stage of world sport. Never before has there been such great emphasis upon devoting unlimited time, energy, and interest upon training. The great rivalry between nations in every sphere of living has forced more and more emphasis upon attaining national glory through physical achievements: whether it be climbing the world's highest peaks, establishing new jet plane altitude records, or dropping down into the deepest depths of the sea or of caves in the earth. No questions are asked as to the means, so long as the end—national glory—is achieved.

That running is an amateur activity and subject to exacting though intangible limitations of time and energy, as well as the more widely accepted limitations of reward, has been by-passed by most of the champions of the present era. Even peerless Paavo Nurmi, who in his day was considered the ultimate in human endurance, now complains that today's runners are too deadly serious about their work of training and competing.

If more and more work and time will bring about improvements in performance, then no more primary

considerations, such as studies or vocation, is allowed to interfere.

But Bannister refused to make this concession, either to personal or national glory. He was a medical student. Sir Philip Noel-Baker said last May that he was one of the most brilliant students that the head of surgery at St. Mary's Hospital in London had ever taught. This was his vocation, his real life work, to which he would give of himself without limitation time and time again.

Medical studies had to come first, and if this meant that there was only 45 minutes left out of each day for training, or that he should lose a night's rest because a new baby had come into the world (which happened several times when he was interning in obstetrics in 1953) he would just have to make the best of it.

The problem for him, then, was quite different from that for Zatopek or for almost all other great runners of today.

KEY QUESTION

For him the key question was, "Within the limitations of time, energy, and interest that are permitted me from my medical studies and the other interests that I consider important, how can I achieve the best possible running condition for a four-minute mile?" It had to be as precise as that.

He could use the relaxing and valuable methods of *Fartlek*, the Swedish "speed-play" off the track, only during the early months of training. To continue it while also running on the track would take far too much time and he had only 45 minutes. He couldn't even afford long, easy jogging by way of warm-up, beneficial as that might be.

He could not plan many competitive attempts at the four-minute mile as had Landy in 1953 and 1954, for such all-out efforts called for concentration of mind and body and time away from studies such as he could not give, week after week. Rather he knew that he would have but one or two competitive chances and that he must center all mental and physical efforts there.

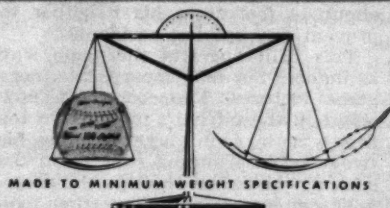
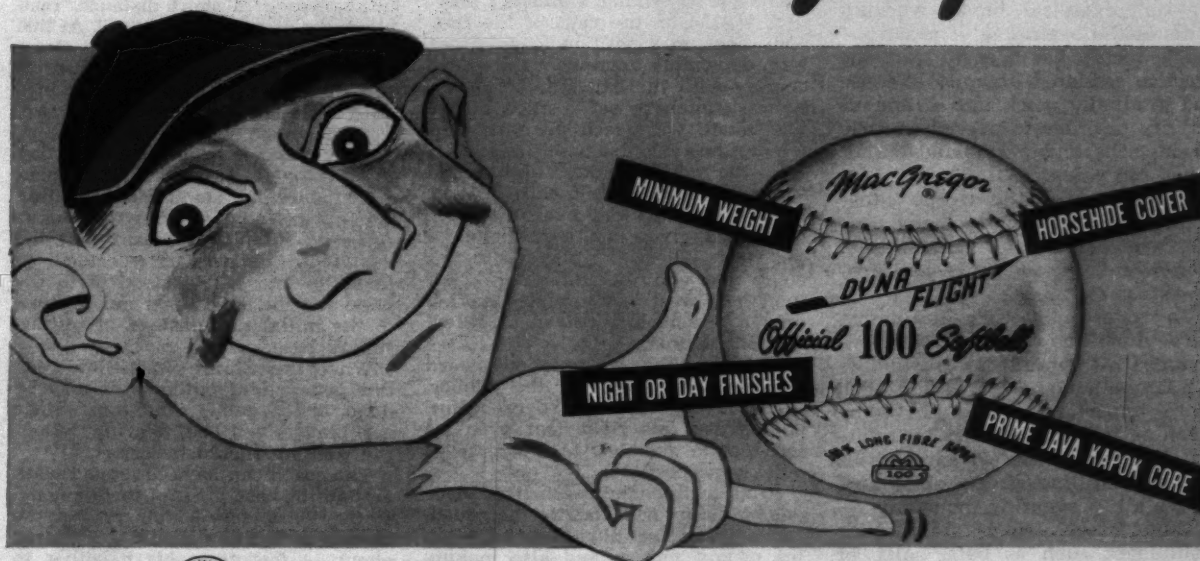
All this is the inevitable burden of the true amateur. That Bannister should have carried it and still have achieved one of man's greatest record in track and field athletics is the real measure of his stature. Add to this that he would be the first to protest and even deride such idealism and deliberateness of purpose, and you have the perfect idol for modern youth.

(Continued on page 42)

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CALISTHENICS play an important role in pre-season baseball practice, both indoors and out. Most teams use them as "loosening up" exercises or as warmup drills at the beginning of practice.

The theory has been to start the practice session with mild exercise and gradually work into strenuous activity in order to prevent muscle strain, charleyhorses, and other aches and pains.

Unfortunately, the word "calisthenics" is anathema to many people, who associate it with wasted motion, robot movements, and pre-breakfast exercise.

To overcome this antipathy, we've done two things. First, we've changed the name from calisthenics to "Baseball-inics." And second—and more important—we've put some meaning into this activity by relating the movements to game skills—thus instilling good habits and, above all, preventing monotony.

Our "Baseball-inics" require no equipment such as bats, balls, or gloves. The squad is spread out over the gym or diamond—then go right to it.

At indoor practice, the players wear regular gym gear, sneakers, socks, supporter, jersey, and possibly a sweatsuit. Baseball equipment such as spikes, gloves, etc., isn't used until outdoor practice begins. "Baseball-inics" do not require any special equipment, just an *active imagination*.

The movements used in baseball that can be incorporated in "Baseball-inics" can be placed in the following categories: Running, batting, catching, pitching, infield play, and outfield play. Since running is the one skill used both offensively and defensively and is an important part of outdoor practice, it will be discussed first.

RUNNING

1. "Cross-Over Step."

Purpose: To habituate the proper start. This is particularly important in baserunning, though it's also essential for the infielder or outfielder who is moving laterally. Failure to steal

a base or reach first may be due to improper start rather than slowness afoot.

Procedure: Have the entire squad assume a baserunner's starting position, weight on the balls of the feet, body bent, in a position to go either way, depending upon what the pitcher does with the ball. The coach assumes a pitcher's set position before the squad, with each member pretending he's on first base.

If the coach makes his motion toward home plate, each player crosses his left foot over his right foot. This gives him a full step at the start. Where the player lifts his right foot and then moves his left foot, he's wasting time. He's taking only a few inches instead of a few feet on his initial step.

If the coach makes a motion toward first or steps back off the rubber, each player reverses this procedure and crosses his right foot over his left foot to get back to first base as quickly as possible.

After awhile, the coach may place one of his pitchers before the squad, thus giving the pitcher practice in his pickoff motion and also making the rest of the squad more alert.

The armwork in the cross-over start consists of throwing the right arm back and the left arm forward (similar to a left uppercut) as the body turns toward second base. The player takes a few steps, then stops and returns to his original position.

This activity is repeated over and over again. Since the player doesn't know which way he'll have to go—either break for second or hustle back to first—it presents a challenge each time. The drill simulates game conditions, where the pitcher can deliver to the batter, make a pickoff attempt at first, or step back off the rubber.

2. "Three-Whistle Drill" or "Stance-Start-Low."

Purpose: To attain full running speed after a few steps, using the correct cross-over start, running at full speed for a short time, then gradually slowing down.

Procedure: An indoor track is ideal for this activity. If none is available,

the squad may form a large circle around the gym floor, spacing itself as it slowly walks in a circle counterclockwise to assure plenty of room between players. Six feet should be the minimum distance.

The coach assumes a position where he can observe the entire squad. After it is properly spaced, he blows a whistle. At the first whistle, the squad stops and each player assumes his starting stance. At the second whistle, each player uses the cross-over step and runs as fast as he can.

The coach lets the squad maintain full speed for a short distance, then blows the whistle a third time. At this signal, the squad *gradually* slows down to a walk. This procedure is repeated over and over again—stance on whistle one, start on whistle two, slow down on whistle three.

After this has been done for a day or two, the coach can keep his squad more alert by sometimes shouting "Back!" instead of blowing the whistle a second time. This means that the imaginary pitcher has decided to throw to first base instead of to the plate and the baserunner must return to the initial sack instead of toward second base.

When this Stance-Start-Slow routine is practiced outdoors, it may be done under game conditions. Since the players will be wearing spikes, the running should be easier.

The coach can have his squad walk around the base paths of the diamond. If there are, say, 25 players on the squad, each man should be spaced about 14 feet from his neighbor to prevent any spiking accidents.

This drill operates the same way as indoors but may incorporate more game features. The coach can now stand on the pitcher's mound. On the first whistle, each player assumes his two-way baserunning stance. On the second whistle, he employs the cross-over step and gains full speed as soon as possible.

Whenever a player comes to a base, he tags the inside of it (part closest to the pitcher) and makes his pivot toward the next base. He should not break stride upon nearing the base, but should tag it with whatever foot approaches it, making contact and shoving off for the next base. While it's desirable to tag the bag with the left foot, if possible, it's more important not to break stride.

The player's eyes should locate the base as he tags it, then come off the ground after passing it. The runner has to know where the ball is and be able to take advantage of any help from the base coaches.

It may be necessary to make a small arc upon approaching the base to obviate making a larger one after leaving it.

After the squad has run a short distance at full speed, the coach blows

By BUCK LAI

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the whistle a third time and the boys gradually slow down to a walk. A player should not pull up short and unnecessarily risk the danger of a leg injury.

This Three Whistle procedure, is repeated over and over again. It provides a series of wind sprints that have more value than mere physical conditioning.

3. "Running Form."

Purpose: To develop running form. A player should run with his head up so that he can see the play, the coach, and the ball. As mentioned before, the only time he drops his eyes is to look at the base so that he will tag it and not trip over or miss it. His eyes come up off the ground after the bag has been tagged.

His weight should be on the balls of his feet and his arms should be pumped forward and backward, not from side to side.

Procedure: Have the squad run in place in the gym and have each player use proper form when running in the Three Whistle drill.

BATTING

1. "Batting."

Purpose: To develop correct batting form, particularly the swing. Proper grip is with the second row of knuckles of each hand aligned. Weight on front part of feet, arms away from body, quiet bat, and eyes on pitcher. Take a short stride, snap the wrists and hips, and follow through, keeping the eyes on the ball.

Procedure: The coach assumes a position in front of the squad and acts as the pitcher. As he releases the ball, each player swings, using correct form. In order to keep his hands together, the player may use an interlocking grip (small finger of top hand interlocked with index finger of bottom hand) as he swings. Wrist snap is important.

If a player has difficulty swinging his hips, have him place his rear hand on his rear hip and push it forward as he swings, or place both hands on the hips and swing his hips forward instead of swinging.

No bats are used in this drill, as the possibility of hitting a teammate is too great, particularly indoors.

2. "Bunting."

Purpose: To develop good bunting form and teach a player how to bunt.

Procedure: The coach takes a pitching position in front of the squad and after he releases the ball, each player assumes a proper bunting stance.

There are two recommended bunting stances for the sacrifice bunt. In the first, the player does not shift his feet but squares his hips and shoulders so that the upper three-quarters of his body, from the knees up, is facing the pitcher. The bunter should not commit himself until the pitcher has released the ball.

The bat is held at the top of the strike zone, which is armpit high, and is brought down to bunt the ball.

The player slides his top hand one-third to one-half up the bat's length. This drill may be done with or without a bat.

The second bunting stance is very similar to the first. The only difference is that the bunter moves his front foot away from the plate and directly faces the pitcher. His entire body is now at right angles to the pitcher.

Either stance is acceptable, but the bunter should rarely move his rear foot, the one farthest from the pitcher, as he may step on the plate and put himself out. However, if he stands deep in the batter's box, he may have to move it in order to protect the plate.

PITCHING

1. "Delivery."

Purpose: To improve pitching form and thus better control. If a pitcher cannot get the ball in the strike zone, he's worthless to the team.

Procedure: Have each member of the squad pretend he's a pitcher. (Everybody should know as much as he can about every position, since circumstances may make it necessary to play a different position at some time.) Start with the windup position and then use the set position. In either case, the pitcher keeps his eyes on the target, steps in a straight line, has his stepping foot contact the floor in a flatfooted position, follows through, and comes to a fielding position. Lines may be marked on the floor or the ground to aid the player in stepping.

2. "First Base Pickoff."

Purpose: To develop a good pick-off motion so that opposing baserunners won't be able to take too great a lead off first.

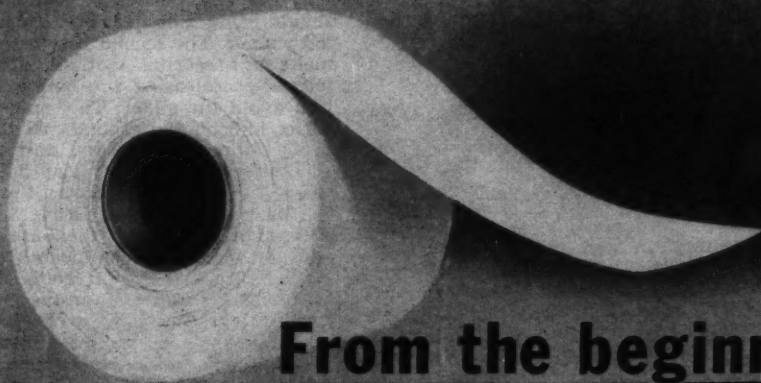
Procedure: Each player assumes a set position. He looks over his shoulder at the imaginary runner on first. He may do this several times. He then makes his delivery to the plate, steps back astride the rubber, or whirls and throws to first. He should be careful not to make a balk.

3. "Second Base Pickoff."

Purpose: To keep a runner from taking too large a lead off second and to learn how to pick a runner off this base. The "Daylight Play," "Feint Play," and "Count Play" will not be discussed here, but the pitcher should know how to pivot to second.

Procedure: Each boy assumes a set position, pretending a runner is on second. The pitcher looks at the runner, then looks at the catcher. He then pivots toward second by making at least a 180° turn toward his gloved hand, and throws to the key-stone sack. The pivot toward the gloved hand (rather than the opposite way) enables the pitcher to conceal his intentions until the last possible second and get full throwing motion.

A straight line from the pitcher's pivot foot toward second base may be marked on the floor or scratched



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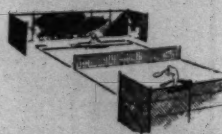
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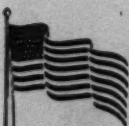
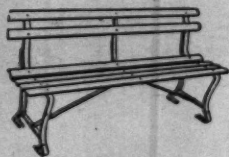
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on the ground. The stepping foot should go on or past this line.

CATCHING

1. "Catching Position."

Purpose: To learn the correct squat or signal position and the proper receiving position.

Procedure: Each player gets down in a squat position, his gloved hand resting on and extending over his knee to hide his signals from the opposition. The knee on the throwing-hand side is pointed more directly toward the pitcher to hide the signals on that side—the way the glove helps do this on the opposite side.

The catcher gives his signal in the crotch with his bare hand and then comes up into a crouch or receiving position. He doesn't stay in his squat, since this prevents him from getting a good start on foul balls, bunts, or topped balls. After receiving the ball, the catcher can practice his shifting and throwing motion to second base.

2. "Fielding Catcher."

Purpose: To get the catcher into the habit of fielding bunts with two hands.

Procedure: The catcher assumes his receiving position, pretends the ball is bunted in front of him, and goes out to field it. He uses his glove as a buffer and scoops the ball into it with his bare hand. This enables him to get a firm grip on the ball with his throwing hand and to throw the ball as an infielder would to the desired base. Where the catcher gropes for the ball with one hand, the possibility of fumbling is sharply increased.

INFIELD PLAY

1. "First Baseman Shift."

Purpose: To get the first baseman in the habit of shifting his feet and stretching to catch the ball.

Procedure: Have each man imagine he's a first baseman. Instruct the squad to shift first to one side and then the other, keeping one foot on the base. When shifting to the left, the right foot should be kept on the bag, and when shifting to the right, the left foot should be touching the bag. Later on, the cross-over stretch can be used; this keeps the same foot on the base as the direction in which the player stretches.

2. "Second Baseman Pivot."

Purpose: To learn several ways to pivot on a double play. This drill teaches three ways, which are named for the direction in which the second baseman moves when pivoting to throw to first: "Left Field," "Center Field," or "Right Field."

Procedure: Every player imagines he's a second baseman receiving the ball from the shortstop for a pivot and throw to first base.

"Left Field" pivot: The second baseman goes toward the shortstop, takes the throw, tags the base with his right foot by stepping on it, and strides with his left foot in pivoting and throwing the ball. This step

should bring him clear of the oncoming runner. The second baseman may make a scissoring motion with his legs after releasing the ball to help him avoid the slider. This maneuver raises him off the ground and brings him farther from second base.

"Center Field" pivot: May be used when the shortstop throws the ball to the second baseman's right. The second baseman tags the base with his left foot and then pushes off it in the direction of left center field. He plants his right foot on the ground and throws the ball to first. This movement places the base between the baseman and the runner. The base acts as a buffer for the infielder and protects him.

"Right Field" pivot: Is very similar to the center field pivot. The second baseman tags the base with his left foot, pushes back off it in the direction of right field, plants his right foot, and steps toward first with his left foot and throws.

3. "Infielder's Start."

Purpose: To learn to be ready for any ball that may be hit at or near you. The player should assume an anticipatory stance, weight forward on the balls of his feet, arms away from his body, and eyes on the ball. He may even be moving forward slightly. The idea is to be able to cover as much ground as possible in any direction. In order to do this when going laterally, the player should use the cross-over as his initial step.

Procedure: Each player pretends he's an infielder and assumes his anticipatory stance. The coach stands in front of the squad and indicates which way the ball has been hit by pointing to the left or right. Each player starts in that direction by using the cross-over step. Outfielders should also use the same start when moving laterally.

4. "Slow-Ball."

Purpose: To learn how to make the many difficult plays. When fielding a slow hit ball, the infielder should charge the ball and field it with both hands if possible. He throws from this bent-over position while on the run. He doesn't straighten up, set himself, and then throw. He must get rid of the ball as soon as he possibly can.

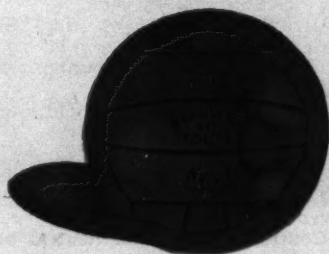
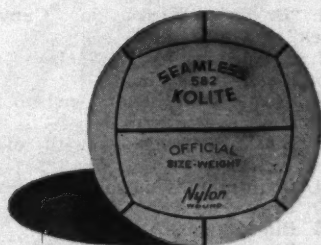
Procedure: Each player assumes his anticipatory stance. (The squad may be turned at a 45° angle in order to utilize all available space.) At a signal from the coach, each member charges an imaginary ball, catches it with two hands, and makes a snap throw toward first base. This activity is primarily for third baseman, second baseman, and shortstops.

5. "Long Throw."

Purpose: When a ball is hit in the "hole" between the shortstop and third baseman, deep near third base, or to the second baseman's right, a long throw is necessary. The infielder usually has to backhand the ball

(Continued on page 40)

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|---|--|------------|----|---------------|----|---------|----|------------|----|-----------|----|----|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|
| ENTER DATE WHEN CHECK OUT OF EACH ITEM IS COMPLETED | | BRIDGER | | ESCAPER | | REACTOR | | CONTROLLER | | TACKLER | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3b | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | TRIPPER | | | | RIDER | | | | DEFENDER | | | | DROPPER | | | | | | | | | | | | | | | | | | | |
| | | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DROPPER | | | | PINNER | | | | MASTER | | | | CONDITIONER | | | | | | | | | | | | | | | | | | | |
| | | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
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| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | ELECTIVES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Conditioning Drills check
Maximum Performance Only

CHECKS INTERPRETATIONS:
 1. Practiced and checked out with a coach or varsity wrestler
 2. Checked out with head coach
 3a. Practiced move correctly 15 times 1st day
 3b. Practiced move correctly 15 times 2nd day
 3c. Practiced move correctly 15 times 3rd day
 4. Used move successfully in at least one scrimmage or match

Front (above) and back (below) of Springfield's unique wrestler's record card designed to motivate activity in 72 basic skills arranged in teaching progression.

THERE are few shortcuts to success in wrestling. As in every other sport, skill depends largely on practice. And there's the rub. Many boys dislike the drudgery of repetition after repetition, week after week. And as a result, they never fully realize on their potentiality.

Since so much depends on interest and practice, Springfield College has developed a program designed to motivate self-activity. And the results have been most encouraging.

This self-activity program consists of 72 essential wrestling techniques gleaned from scouting and meet reports over a period of two years. The maneuvers are arranged in teaching progression, with the needs of both the beginning and experienced wrestler kept clearly in mind.

The wrestling candidate is approached as follows:

Until you gain competence in a number of basic techniques, you're liable to be classified by certain disparaging terms. You're a *Canvas Back* until you learn to escape and block pins; a *Bottom Man* until you get out; a *Slow Reactor* until you develop some sequences; a *Push Over* until you maintain position on your feet; *Defensive-Minded* until you master some take-downs; the *Old Caboose* when you stay in the rear standing; a *Paper Bag* if your

opponent breaks away from you; a *Sucker* to get stuck in leg rides and bar arms; you're *Operation is Limited* without a variety of counters and take-downs; and you're a *Floater* if you don't go for the pin.

You gain status as a wrestler by shedding these derogatory classifications. This is accomplished by working through each technique listed on the Wrestler's Status-Data Sheet in accordance with the following checks:

First, work with one of the coaches or varsity wrestlers to learn the technique and check out with him.

After you've perfected the maneuver, check out with the head coach.

Next, practice each move correctly 15 times a day for three days and check the days on your individual record card. (See illustration.)

Finally, when you've used the maneuver correctly at least once in a scrimmage or match, you may check this off on your card.

The Status-Data Sheet, containing the basic 72 stunts, follows:

By **RAYMOND E. SPARKS**

Coach, Springfield College

President, American Wrestling Coaches and Officials Association

I. "Bridger" if you do, "Canvas-Back" if you don't.

1. Escape from half-nelson and crotch pin, each side.

2. Escape from reverse-nelson and crotch pin, each side.

3. Block half-nelson with elbow lock roll.

4. Counter half-nelson with under arm drag.

5. Block quarter-nelson.

6. Block three-quarter nelson.

II. "Escaper" if you do, "Bottom Man" if you don't.

7. Far side roll to reverse nelson and cradle pin.

8. Sit out, turn in.

9. Sit out and turn out.

10. Craw fish as a counter for spin around from neutral position on knees.

11. Stand-up escape from underneath.

12. Whizzer hip throws from kneeling position side by side.

III. "Reactor" if you do, "Slow Reactor" if you don't.

13. Roll through to counter whizzer hip throw.

14. Block whizzer with hold around leg back of knee.

15. Switch sequence.

16. Counter sit out with over drag.

IV. "Controller" if you do, "Push Over" if you don't.

Control opponent in neutral position.

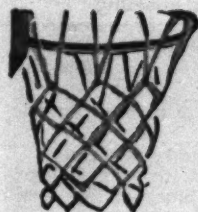
17. Collar elbow.

18. Shoulder push or hold biceps.

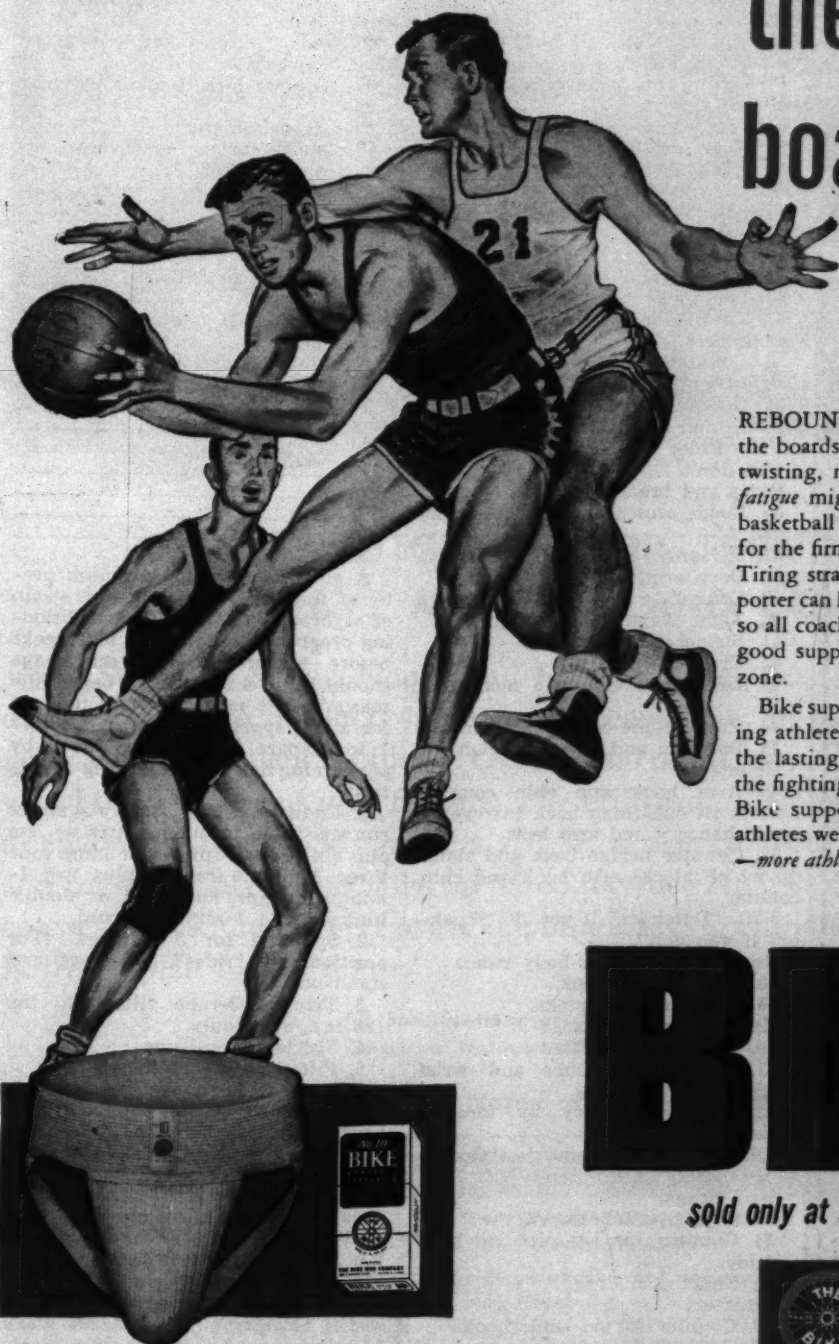
19. Hold triceps.

20. Underhooks.

21. Whizzer.



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V. "Tackler" if you do, "Defensive Minded" if you don't.

Take-downs:

22. Double leg tackle.

23. Under arm and single leg (fireman's carry).

24. Under arm and outside leg as counter for underhooks which have blocked your tackle.

25. Inside crotch and leg trip as counter for whizzer which has blocked your tackle.

26. Single leg pick-up head outside.

27. Single leg pick-up head inside.

Pins from inside crotch stack-up position:

28. Far leg, reverse-nelson cradle.

29. Near leg, half-nelson cradle.

VI. "Tripper" if you do, "Old Caboose" if you don't.

Rear standing position and take-downs from it:

30. Back heel.

31. Hip throw.

32. Leg pick up and trip.

33. Double ankle drop and lift.

Counters:

34. Counter stand up with near heel pick up and backward drop.

35. Counter side head-lock with pick up and backward drop.

VII. "Rider" if you do, "Paper Bag" if you don't.

Rides and break-downs:

36. Inside crotch pry and near arm pull.

37. Far ankle and near arm.

38. Deep crotch.

39. Cross face and near ankle.

40. Tight waist and head pry.

41. Stretcher.

42. Cross-body ride.

43. Leg grape vine and near arm lock.

44. Two-on-one wrist bar arm.

45. Bar arm and outside crotch.

Counters:

46. Arm hook and chin counter against sit out. Snap back to reverse head chancery and arm lock.

47. Counter bridge back and stand up which blocks arm hook and chin counter.

VIII. "Defender" if you do, "Sucker" if you don't.

Escapes from cross-body rides:

48. Against overhook.

49. Against underhooks.

Releases and blocks:

50. Release ankle rides.

51. Release bar arms and wrist holds.

52. Block head pry by forearm twist.

IX. "Dropper" if you do, "Operation Limited" if you don't.

Arm drags:

53. Offensive take-down.

54. Counter for leg pick up head outside.

55. Short arm drag.

Whizzer:

56. Counter for an underhook.

57. Counter for leg pick up head inside.

Other take-downs:

58. Under arm sneak.

59. Snap down and jump behind.

60. Head and heel.

61. Reverse head chancery and arm

block from neutral kneeling.

62. Knee top to counter underhooks in neutral kneeling position.

X. "Pinner" if you do, "Floater" if you don't.

Pins from bar arm and outside crotch:

63. Half-nelson and bar arm.

64. Far arm hook, to reverse head chancery and arm block or key lock.

65. Near half-nelson or head scissors.

66. Near arm block and half-nelson head chancery.

67. Hammer lock to underbody bar arm.

Pins from whizzer:

68. Quarter-nelson to reverse-nelson straight jacket.

69. Reverse direction with a pancake.

Pins from Cross-Face:

70. Double arm tie up.

71. Cross-face cradle.

72. Pancake.

XI. "Master" if you do, "Negligent" if you don't.

Additional techniques mastered:

73. _____

74. _____

75. _____

76. _____

77. _____

78. _____

79. _____

80. _____

XII. "Conditioner."

A good conditioning program prepares the body to handle the strain of vigorous wrestling. The conditioning program should start 2 to 5 weeks before scrimmage, and scrimmage should begin 4 to 8 weeks before the season's first meet. Anyone not out for a fall sport should start October 1 to prepare for the first meet, by performing daily the following activities:

1. Endurance and Agility—either run one mile in six minutes or less plus six 50-yard sprints, or jump rope three 3-minute rounds plus two 1-minute rounds for speed or double jumps for a 1-minute record.

2. Spinning for 3 minutes. (For positions, see "rides", cross-face, and stand-up.)

3. Two or 3-rope climbs to top (25 ft.), arms only.

4. Six to 10 pull-ups.

5. Fifteen to 25 push-ups.

6. Forty to 50 sit-ups.

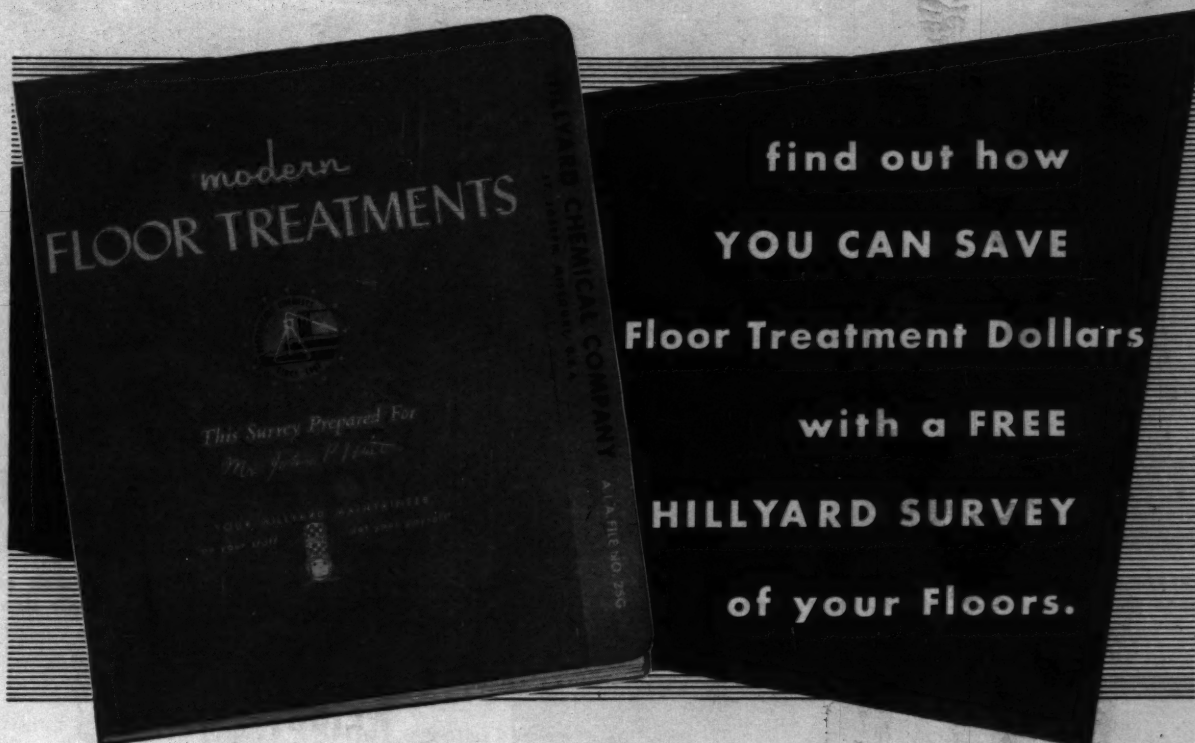
7. Ten high bridges followed by 5 back push-ups.

8. Five knee bends with a man of equal weight on your shoulders.

As you can see, the maneuvers that develop strength in certain vital areas are stressed early in the program. For example, the first series of techniques, "Bridger," includes work in escaping from pinning combinations and in blocking pinning attacks. Work of this type not only provides excellent conditioning for the neck, back, and trunk, but develops protection against pinning holds—which can prove so discouraging to beginners.

The second group, "Escapes," em-

(Continued on page 44)



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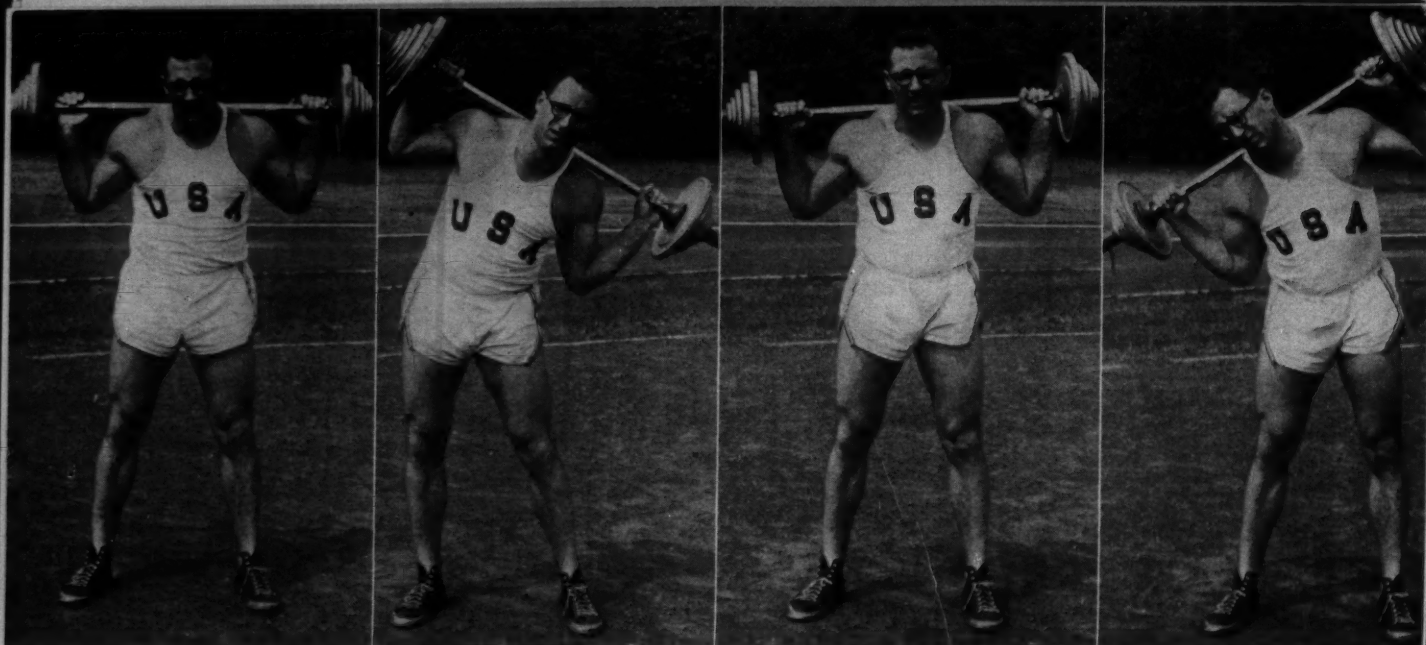
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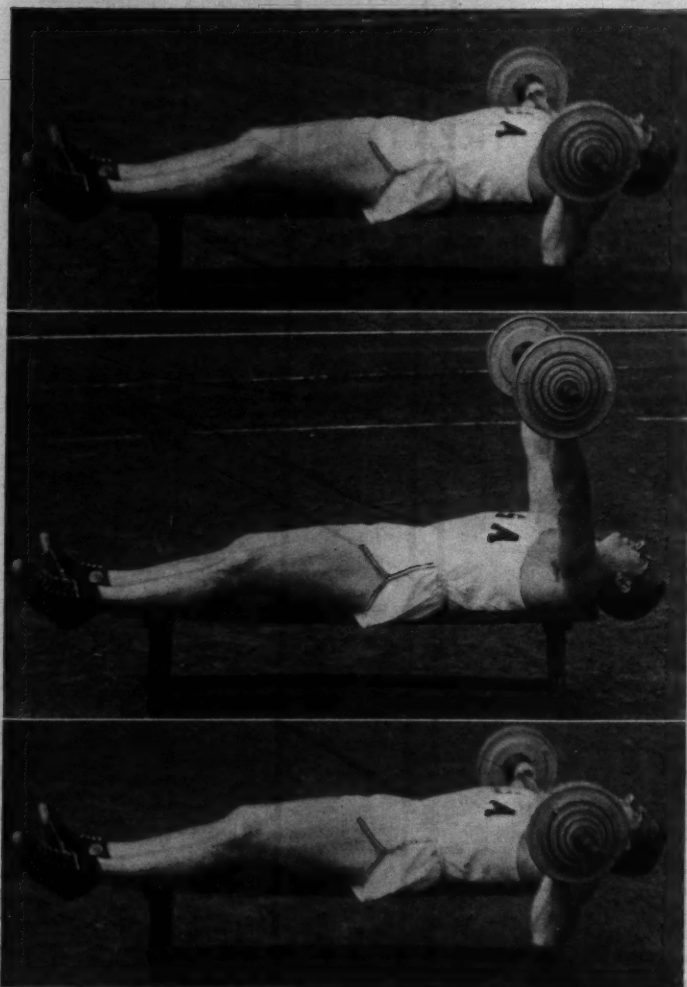
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EXERCISE 7 (Side Bends): Holding bar behind neck (1), bend trunk sideward to left (2). Raise trunk to starting

position (3). Bend trunk to right (4). Raise trunk to starting position. Repeat drill 5-10 times to each side.



EXERCISE 8 (Bench Press): Lying on back on bench, holding bar just above chest with arms flexed (1), press bar away from chest rapidly (2). Lower to bent arm position (3). Repeat 5-10 times.

WEIGHT TRAINING

(Continued from page 9)

probably does exist. In his book, *Modern Track and Field*² he writes, "To get a heavy object, such as a 16-lb. shot, in motion as quickly as possible, obviously requires strength and quickness of action—the heavier the object, the more strength is needed; the lighter it is, the more speed."

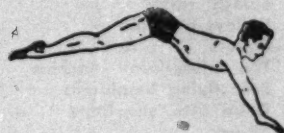
I believe an explanation of this is necessary to show that strength and speed are more closely related than many coaches are ready to admit.

The weight of the 16-lb. shot provides enough resistance for the great majority of collegiate shot-putters to slow down the muscle contractions involved in putting. The 12-lb. shot is heavy enough to do the same for the great majority of high school putters.

The athlete works to achieve greater strength. This added strength allows him to overcome the weight resistance and makes for a quicker muscular contraction, thereby increasing the momentum of the shot as it leaves the hand. *The additional strength has made the athlete faster.*

Convinced that weight lifting to gain strength was the way to gain better performances, each of the aforementioned trio of O'Brien, Gordien, and Backus began, at one stage or another in his career, such a program. Others who have benefited by weight-lifting are Chandler, Mayer, and Stanley Lampert, the world's only other 59 footer besides

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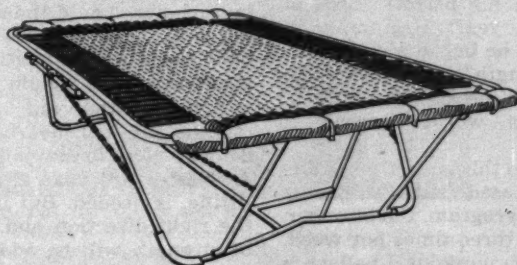


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|------------------------------|----------------|------|--------------|
| 1. Warm-up chopping exercise | 30 lbs. | 1 | 10 |
| 2. Sit-ups on inclined bar | — | 1 | 15 |
| 3. Lateral raises | 20-25-30 lbs. | 3 | 8-8-6 to 8 |
| 4. Pulleys on wall | 12½-15-30 lbs. | 3 | 10-10-6 to 8 |
| 5. Squats | 230 lbs. | 3 | 10-8-6 to 8 |
| 6. Toe raises—wall machine | 275 lbs. | 3 | 15 |
| 7. Side flying dumbbells | 20-25-30 lbs. | 3 | 10-8-8 |
| 8. Dead lifts—one hand | 80-90-100 lbs. | 3 | 8-8-6 to 8 |
| 9. Sit-ups | 25 | 2 | 15 |
| 10. Leg lifts (boots) | 10 lbs. | 2 | 15 |

Fortune Gordien's weight-training program

O'Brien and Mayer. Mayer's 58'1½" at the 1954 N.Y.A.C. Indoor Games was the result of months of hard work at building strength.

PARRY O'BRIEN started his weight lifting soon after the 1951 season. His best marks with the shot and discus were, up to that point, 55'9¼" and 155'6", respectively. His favorite exercises with the weights are bench presses, curls, military presses, and clean and jerks. He can bench press 275 pounds five times. He repeats this exercise three times during his workout. He works with 215 pounds and then 225 pounds, pressing each weight overhead twice in succession. He constantly seeks to gain further strength by adding additional weight resistance.

All his work is done with speed of movement in mind. When asked about his weight-lifting program the night he broke the world's indoor record with a throw of 59'4", he said, "I do a lot of it. I don't think any shot-putter can get too strong."

FORTUNE GORDIEN: If any athlete has benefited by a weight lifting program, it has been Gordien. A member of the Olympic teams of 1948 and 1952, and the world's record holder in the discus at 186'11", the year 1953 found him a bit disgruntled with his performances of the previous year. Beginning in April of 1953, he began a rigid program of strength development. In four months time he was able to create a new world's record at 194'6".

In a letter to this author he wrote, "I'm very pleased with the results of my weight program. I'm stronger. I lift weights three times per week, two hours each workout. I believe it the finest, quickest way to better marks in track and all other sports. Mainly it gives one a mental confidence, and this is important in all fields of endeavor."

Gordien's workout as reported by him is shown above.

BOB BACKUS created a new world's record in the 35-lb. weight throw at the 1954 National AAU In-

door Championships. His mark of 63'5" annihilated his own previous record of 61'8¾" set a few weeks earlier. His throw of 189'3" with the 16-lb. hammer created a new National AAU Outdoor Championship mark. A throw of 42'5" with the 56-lb. weight the day before created a new world's record.

In 1946, Backus weighed 145 pounds. Today he weighs 210 pounds, spread very nicely on a 6'4" frame. His weight-training program consists of five consecutive squats, handling as much as 300 pounds. He does prone presses, cleans, and shoulder shrugs. In the latter exercise, he handles as much as 350 pounds. Every exercise is repeated twice during a workout.

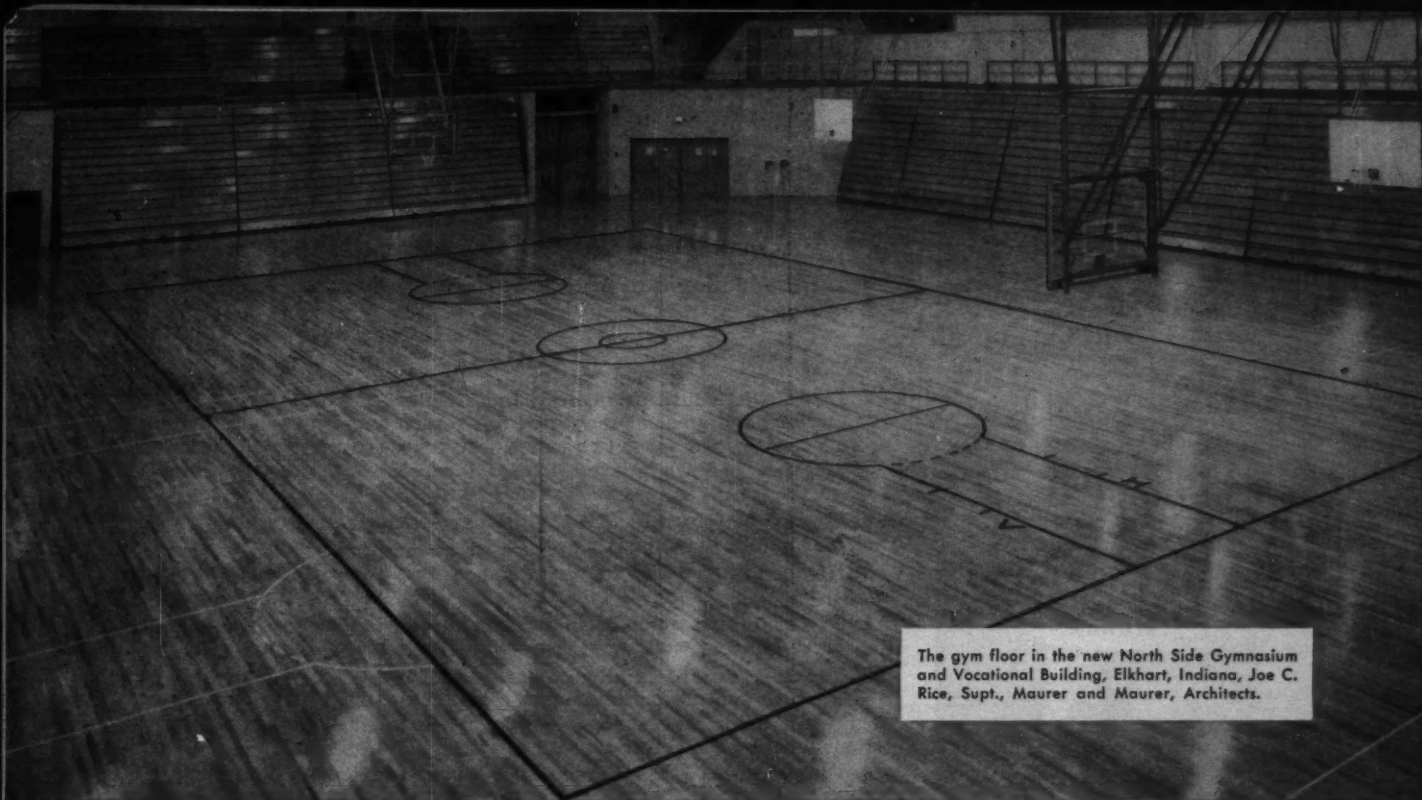
"I don't do certain exercises such as presses," he told the writer, "because they do not help me with the weight or hammer. I believe lifting has helped me tremendously."

The fall months are excellent for non-football playing weight men to devote to the problem of strength development. The exercises recommended here are basic and concern themselves primarily with big muscle groups.

This program will produce the type of all-around strength needed by weight men. I do not concern myself, nor should the athlete, with the size of the muscle—that is, the body beautiful. Strength is the only goal the athlete should seek.

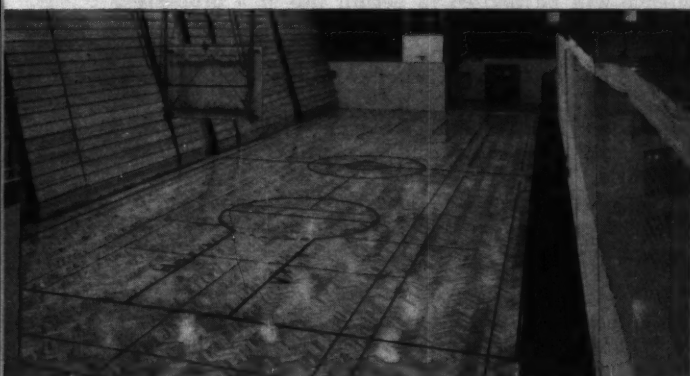
Actually the fall and winter months are not nearly enough to develop close to maximum strength. At least a full year, if not more, of lifting, is needed. But it's a start in the right direction and a good deal of strength will be added. As Gordien pointed out, the lifting will develop a mental confidence—that's very important.

Later on is time enough to begin to concentrate, as Backus and the others do, on those exercises that will benefit a particular event. Shot-putters would do well to stress exercises #1, 2, 7 and 8; discus throwers #2, 6, 9a and 9b; hammer throwers (Concluded on page 54)



The gym floor in the new North Side Gymnasium and Vocational Building, Elkhart, Indiana, Joe C. Rice, Supt., Maurer and Maurer, Architects.

Elkhart School City Officials choose new CRYSTAL SEAL-O-SAN...for use on the floors in the world's largest high school gymnasium



The new building includes two separate gym floors for boys' and girls' gym classes in addition to the deluxe arena on the main level.

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Fine hardwood flooring was selected for the four basketball courts and new Crystal Seal-O-San gym floor finish was specified. The finished floor is truly beautiful... light, natural-looking, glare-free, remarkably slip resistant and easy to maintain.

If you're planning a new gym or refinishing one in existence be sure to investigate Crystal Seal-O-San. Write Huntington Laboratories today for information and prices.

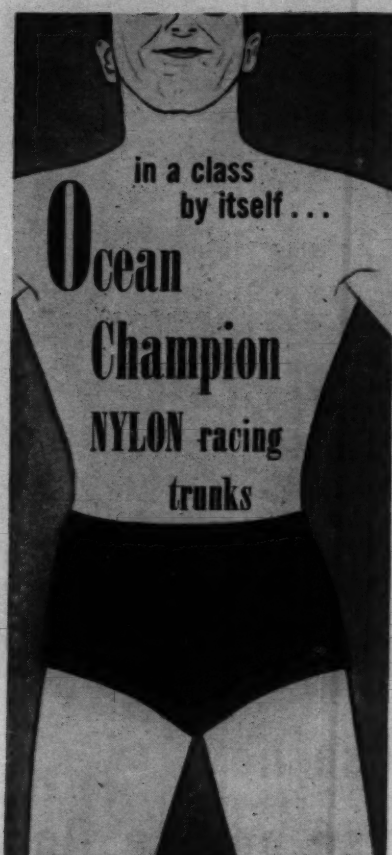
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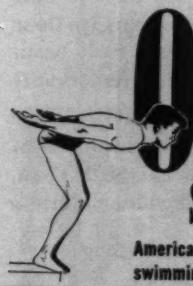
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Football Rules Changes

**A summary of the more significant changes in
the collegiate and schoolboy codes for 1955**

COLLEGE

1. Liberalized substitution. Any and all players who start a quarter can, after having been substituted for, return once and at any time in same quarter. For past two years, players were permitted just one appearance in each quarter except for second and fourth periods when they could return in last four minutes.
2. Sleeper play banned. All eligible players must be within 15 yards of ball before play starts.
3. Holder of place kick may run or pass ball even if he has lined up with knee on ground.
4. Signal for fair catch is simply raising hand. Receiver won't have to wave hand as well, as in the old rule.
5. Tackle or guard is eligible for pass if he's end man on line of scrimmage and not outflanked by a teammate. That means a back or end who might have dropped back at last instant cannot be wider than would-be receiver on end of line.
6. Cleats can now be rounded on bottom—previously, points had to be flat.

Rules committee also issued warnings calling for stricter enforcement of false start (sucker shift) and illegal use of elbows. It feels that present rules adequately cover both and it's up to officials to have teams observe spirit of rules—meaning they want only legal shifting and no use of elbows above opponent's shoulder.

HIGH SCHOOL

- 1-5-1: Last sentence will be revised to urge *further use of some sort of mouth or face protector* and to make it permissible for any player to use a properly constructed face mask, including a rubber-covered cage-type mask.
- 1-5-3-d: Last sentence will be revised to permit use of a properly constructed *metal-tipped cleat*.
- 6-2-4: Last sentence will be revised to make it clear that *first touching of a kick by K is ignored* if R then touches kick and thereafter commits a foul.
- 7-2-7: Wording will be revised to omit statement about a *snapper moving his feet during snap*. This will permit snapper to move his foot at time ball motion starts.
- 10-2-1, 2: Articles will be revised to indicate that dividing line in determining whether these fouls constitute a double or multiple foul is *beginning* rather than *ending* of enforcement.

General interpretations:

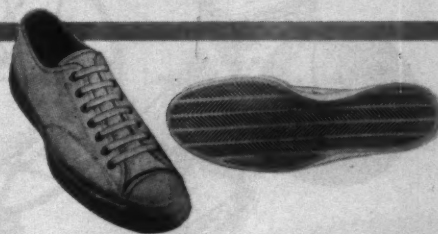
1. In determining whether a second shift is a false start, official may regard suspiciously snapper suddenly removing hand from ball to participate in shift; or linemen, after taking normal charging position with a hand on ground, make sudden change in this position as part of shift.
2. If two players have hand or hands on ball, each is to be regarded as a runner and either may be tackled.
3. If snapper moves a foot at about time of snap, official is authorized to penalize if he suspects foot is being moved before snap motion starts.
4. If player makes practice of slapping or jerking or twisting an opponent's face protector, it is a suspicious act.
5. Beginning with 1958 season, white sleeve stripes below elbow will be prohibited.
6. Beginning with 1956 season, a cleat longer than $\frac{7}{8}$ in. will be prohibited.

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Spalding-designed athletic shoes are justly famous for their combination of greater foot security plus true freedom of action.

The specially designed Spalding last fulfills requirements for top-grade, long-lasting comfort and utility in sporting footwear of all types.



(064) The famous ribbed sole model, laced to toe. Made of two-ply, white duck, ventilated uppers. Double thickness, non-chafing toe construction; wide tongue, telescope eyelets. Full-cushioned insole featuring the Spalding-type cushioned sport arch and heel for maximum comfort during constant wear. Non-marking red rubber "SS" stock herring-bone ribbed outsole.



(FW-2) Featherweight shoe approved by pros, Spalding's finest model. A featherweight sprint model shoe made over the famous Spalding lasts. Uppers of specially selected, genuine, yellow-back Kangaroo with lightweight leather vamp linings. Grain leather counters. Goodyear welt construction for smooth fit plus extra service. Hand-shaped, parkerized steel toe and heel plate.



(SS) A long-wearing shoe that's a player favorite. Best Army duck, loose lined and reinforced. Wide tongue, ankle patch, telescope eyelets. Special Spalding-cushioned sport arch and heel for added comfort. Non-marking, red rubber sole with famous "S" design. White rubber bumper strip for added strength. Uppers in either black or white.



(264) A fine light shoe for game or practice. Choice grade, blue-back Kangaroo uppers with soft toe, leather-lined vamp. One-piece combination, outside counter pocket and back stay. Sole leather counters. Genuine Goodyear welt construction. Flexible full sole, small game cleats attached.



(11 TR-2) These are the shoes preferred by top-ranking track stars! Choice, blue-back Kangaroo uppers, leather lined through instep. Quarters reinforced with white elk leather strip running from back stay to shank to eliminate stretching. Genuine turned construction. Selected natural bend taps. Goodyear lock-stitched. Detachable, tempered steel, outdoor-length spikes.

SPALDING

SETS THE PACE IN SPORTS

COACHES' CORNER



Please, send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

AS Fred Russell tells it, this particular high school track star was something of a showboat. He wore his medals on his coat all the time, in much the manner of a Pentagon general. One morning, as the squad was boarding the bus for an invitational meet, the kid rushed up huffing and puffing minus his ornamental display.

The coach was amused. "Say, Dave, where are all your medals?"

The kid looked down at his coat and groaned, "My gosh, Coach, I must have left them on my pajamas!"

Under Coach Dutch Stanley, the U. of Florida was losing pretty consistently, much to the annoyance of the alumni wolves. One afternoon, Stanley expressed himself bitterly on their quibbling and howling.

"Coach, just which alumni do you mean?" inquired an assistant.

Stanley looked at him abjectly. "Son," he said solemnly, "when you back into a buzz-saw, do you know exactly which tooth is doing the most damage?"

'Twas a mighty fine piece that Sports Illustrated put together on the Mooseheart (Ill.) High School football team. Though Mooseheart is an orphanage with an enrollment of 100 boys—very few of whom scale over 170 pounds—its Red Ramblers knock over the biggest of regular high schools. Their pint-sized coach, Johnny Williams, an alumnus himself, is reputed to be a football genius. For 20 years, he's been teaching a bewildering repertoire of 150 plays off nine different formations!

Johnny describes it as "the confused T, with an unbalanced coach in motion." A rival coach, attempting to scout it, threw up his hands, paper, and pencil in disgust and groaned, "How the devil do you chart 11 greased pigs?"

When asked why the Mooseheart players come in such small packages, Williams has a classic reply (remember, Mooseheart is an orphanage). "I'd like bigger players but I sure as hell don't want more of them. The basic eligibility requirement for this team is just a little too tough."

Connie Mack was a kindly old gent on the ball field, but he wasn't the Milquetoast his biographers would have you believe. He could express himself quite firmly when the occasion warranted.

There was the afternoon an umpire called a game on account of rain in the seventh inning, just as the Yankees went ahead by a run. The game had started in light rain and Connie saw no reason why it shouldn't finish the same way.

He walked over to Umpire Art Passarella and impaled him with a baleful glare. "Tell me, Art," he sneered, "did the rain get wetter when the Yankees went ahead?"

We happened to be present when the Boston Celtics racked up the Minneapolis Lakers, 115-108, to set an all-time scoring record for Madison Square Garden. A spectator, arriving

1000 FUNNY STORIES

MORE than 1000 of the funniest sports anecdotes ever to see print, completely indexed by sport, appear in the *Speaker's Treasury of Sports Stories* by Herman L. Masin, editor of *Scholastic Coach*. Prepared especially for coach public speakers, the book also contains a manual on how to prepare and make speeches, as well as a special section of actual speeches delivered by famous sports personalities. For your copy, order from Prentice-Hall, Inc., 70 Fifth Ave., New York, N. Y.

a bit late for this opening game of a twin bill, took his seat under the assumption that he had missed only a little of the action.

He glanced at the scoreboard—and his eyes popped. The score was already 54-54! Unable to contain himself, he brought the house down by indignantly bellowing:

"Whadda ya mean scoring 108 points before I got here. Why, it's RIDICULOUS!"

Chub Feeney, youthful vice-president of the Giants, represented Willie Mays at the annual sports award dinner of the Harlem YMCA in New York City. Accepting Willie's "Colored Athlete of the Year Award," Chub praised Willie fulsomely: "Despite all his acclaim," vouchsafed Chub, "Willie remains a simple and unspoiled kid. And we'd like all his friends in Harlem to keep him that way."

Whereupon Jackie Robinson, the M.C. of the affair and a Giant-killer from way back, rose to his feet and said, "If Willie's friends in Harlem will spoil him for just a few years, it'll be okay with me!"

Who says athletes are dumb? Take Paul Likins, for instance. The 6-9 North Carolina center is a physics major who has the highest average in the entire university! He's president of Phi Beta Kappa and a Rhodes scholarship winner. He's so brilliant that special examinations are devised for him by the faculty! Mr. Einstein, please shove over.

Navy was beating Army 7-0 in 1921, when the Cadet coach called on John Pitzer, a substitute end, to go in. As Pitzer jumped up off the bench, he stepped through the handle of the water bucket. He was so anxious to get in that he ran out onto the field with the bucket hanging on his leg.

Swede Larson, Navy captain, called for time. "Mr. Referee," he said, "I'd like to call your attention to the new Army end. He's using illegal equipment."

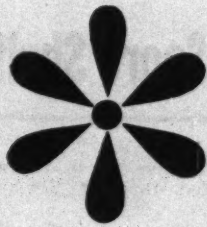
When John McEwan was head mentor at Army, he had a great admiration for Knute Rockne's coaching. Before the 1924 Army-Notre Dame game, he met Knute in the middle of the field.

"Say, Mac," said Rockne, "how about playing four 12-minute periods today?"

"Nothing doing, Rock!" McEwan replied. "We get 60 minutes of instruction from Notre Dame every year, and you're not going to cheat us out of 12 minutes of it!"

If Harry Carlin, City College of N.Y. soccer coach, doesn't go mad first, he may wind up the greatest linguist in the world. Carlin's championship team is a walking, talking United Nations, with players from Italy, France, Eng-

(Concluded on page 40)



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By **GEORGE SISLER**

Foreword by Branch Rickey

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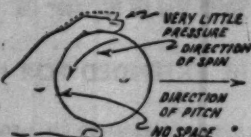
- stance
- timing
- signaling
- blocking
- throwing

Fielding:

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- the double play
- the run-down play
- pick-off plays
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Information on base running with instructions for every slide and the occasions for each.

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Included, too, are colorful anecdotes drawn from Sisler's life: memories of his own diamond clashes with the heroes of his heyday, and his experiences teaching such Brooklyn Dodgers as Carl Furillo, Jackie Robinson, Duke Snider. One of the earliest occupants of Baseball's Hall of Fame, the only American Leaguer to equal Ty Cobb's .420 average and a model for all first basemen, Sisler knows what he is talking about. His book is one no coach or player should be without when starting training for the new season.

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New Books on the Sport Shelf

- **100 BASKETBALL DRILLS.** Compiled by Eddie Hickey. Pp. 48. Illustrated—diagrams. New York: The Coaches' Press. \$1.

THE famous St. Louis U. basketball coach has done a magnificent job of compiling 100 of the soundest, most utilitarian, all-purpose drills you ever saw. An ideal training device for both varsity coaches and gym instructors, the book offers the basketball teacher the perfect means of accelerating his teaching, relieving the monotony of practice, and keeping his boys' interest at a pitch.

Eddie beautifully diagrams and clearly explains his own best drills plus those of many of the nation's foremost college and high school coaches. The drills are organized along the following lines:

1. Fundamental drills (passing, dribbling, cutting, defense, etc.).
2. Shooting drills.
3. Continuities and weaves (drills based on famous patterns).
4. Give-and-go series.
5. Warm-up drills.
6. Two- and three-man plays.
7. Fun-game drills.

The book is beautifully turned out in ideal fashion for the basketball coach and physical ed instructor. At a buck, it's a steal. You may order from The Coaches' Press, Box 231, Old Chelsea Station, New York 11, N.Y.

- **ADAPTED PHYSICAL EDUCATION.** By Arthur S. Daniels. Pp. 538. Illustrated—photos. New York: Harper & Bros. \$6.

A WELL-KNOWN and widely experienced authority on physical education for the handicapped, the author is singularly qualified to write on the principles and practices of adapted physical education.

His book offers a sound, practical, complete manual on the special techniques of adapting physical education for the handicapped. It covers every facet of such a program—organization, administration, curriculum, class and individual techniques, physical, anatomical, and psychological problems.

The author has compounded his material into three broad sections:

Part I defines the nature and extent of the problems of exceptional students.

Part II sets forth in terms of principles and administrative practices the means whereby these students can be aided through physical education.

Part III offers a nontechnical description of the most common types of disabilities found among students. The discussion is aimed at helping the teacher and physician translate medical diagnoses in terms of develop-

mental and protective needs as they may be satisfied through physical education.

Physical education students, teachers and administrators, as well as occupational and physical therapists, will find this book a magnificent aid in the performance of their duties or studies.

- **INDIANA BASKETBALL.** By Branch McCracken. Pp. 207. Illustrated—photos and diagrams. New York: Prentice-Hall, Inc.

THE fabulously successful coach of the fast-breaking Hoosiers offers a complete course on the hoop game, covering in order:

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3. Care of Injuries.
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14. Defensive Fundamentals.
15. Team Defense.
16. Drills.
17. Substitution and Time Out.

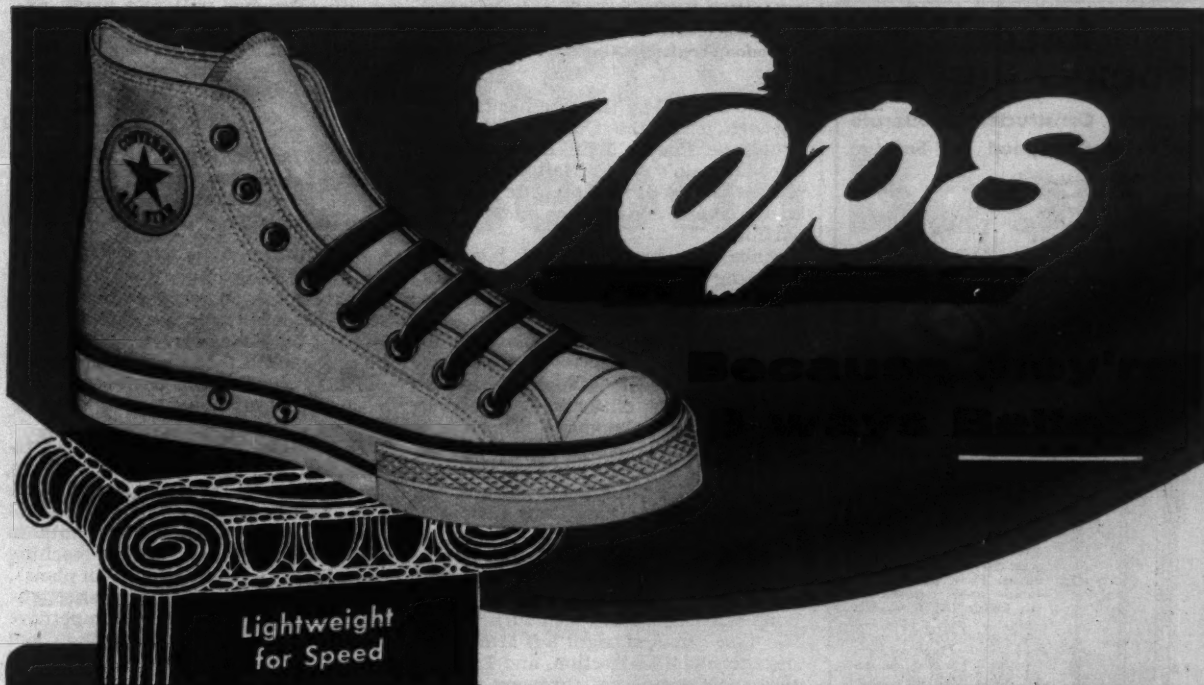
The author covers his subject simply and clearly, including a detailed weekly practice schedule and 20 drills. The book is particularly valuable for young coaches and gym class instructors.

FREE BOOK CATALOG

THE 1955 catalog of the internationally famous SportShelf organization offers one of the most extensive listings of sports books and films ever to see print. Double the size of last year's edition, it contains approximately 1,500 titles.

Besides the regular sports listings, the catalog includes sections on Games, Dancing, Hobbies & Crafts, Physical and Health Education. It also contains a listing of American and foreign sports publications and a section on unusual gifts with a sport motif.

Every coach, athlete, library, and physical ed instructor and major will want this attractive and valuable catalog. It is available free from SportShelf, 10 Overlook Terrace, New York 33, N. Y. Include a three-cent stamp for return postage.



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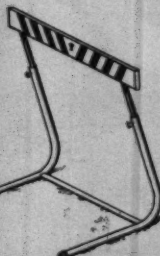
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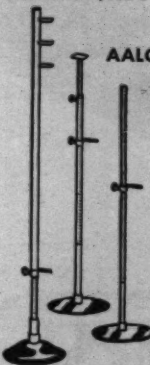
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1115 Jerome St., Midland, Mich.

- **HAMMER THROWING.** By J. Le Masurier. Pp. 36. Illustrated—photos and drawings. London, England: Amateur Athletic Assn. 75c.

STIMULATED by the hammer throwing article in the October issue of *Scholastic Coach*, John Le Masurier, Great Britain's A.A.A. National Coach, sent us a copy of his fine little manual on the event for mention in this department.

Since our knowledge of hammer throwing is confined to violent carpenters, we passed along the book to that great authority on the event, Sam Felton, and here's what Sam had to say about it:

"I'd say that Le Masurier's booklet is the best book on hammer throwing in the English language. There are a few technical points that may be subject to question, but there are many ways of skinning a cat and Le Masurier has his variations just as I have mine.

"Specifically, he emphasizes a straight left arm throughout the turns, yet asserts that the hips and lower body must complete each turn before the hammer. A straight left arm could tend to block this action, and I notice that the Continental throwers permit their left arms to bend with the completion of each turn, then straighten as they sweep into the next turn.

"However, the book explains hammer throwing adequately and is a real contribution to track and field literature."

The book is available in the U.S. from SportShelf, 10 Overlook Terrace, New York 33, N.Y.

- **WEIGHT LIFTING.** By Jim Murray. Pp. 95. Illustrated—photos. New York: A. S. Barnes and Co. \$1.75.

THIS is a concise well-written guide for weight training, with numerous, well-chosen illustrations that increase the effectiveness of the instruction.

The author is an enthusiastic weight lifter and one can feel his enthusiasm bubbling over when he describes the advantages to be gained from weight training. References like the one about the boy who through weight training "did overcome a heart condition brought about by rheumatic fever" needs clarification, however. What he probably means is that the boy had been condemned to prolonged rest as a precautionary measure. Had he continued resting he would have eventually become a neurotic with an imaginary heart condition. By taking a chance and undertaking weight training, he discovered that his heart was normal and, therefore, got rid of the psychological "heart condition."

Suppose his heart had been damaged by rheumatic fever? . . . One cannot emphasize too strongly the importance of having a thorough medical examination before engaging in any strenuous sport, including weight training.

This book will be of great interest not only to prospective weight lifters but to persons prejudiced against the

activity. Coaches will find many examples indicating that judicious weight training can be of great help in swimming, track and field, and team sports.

—Dr. Peter V. Karpovich

- **THIS IS TRAMPOLINING.** By Jim Norman and Frank La Due. Pp. 167. Illustrated—photos, drawings, and diagrams. Cedar Rapids, Ia.: Nissen Trampoline Co. \$8.

A LABOR of love by two great champions, this book offers a splendid exegesis on the sport of trampolining. Sound teachers both, the authors indicate not only the correct path of progress, the skills that should be learned, and how they should be learned, but most important, *why* they should be learned.

They cover precisely those skills that teachers and athletes want to know. After a general introduction and some specific instructions to coaches and students, the authors delve into fundamentals, teaching techniques (including 40 lesson plans), mechanics and trampolining, mechanical analysis of basic competitive stunts, advanced trampolining, and competition.

All the stunts are illustrated by specially prepared action sequences, each sequence taking up a half page. Many excellent drawings and diagrams round out the illustrations. Printed on extra heavy, glossy stock, the book represents a concrete contribution to the sport.

Track Film Loops

- **TRACK AND FIELD SPORT LOOPS.** Prepared by Payton Jordan. 16-mm. color. Whittier, Calif.: Payton Jordan Film Enterprises. \$3 each.

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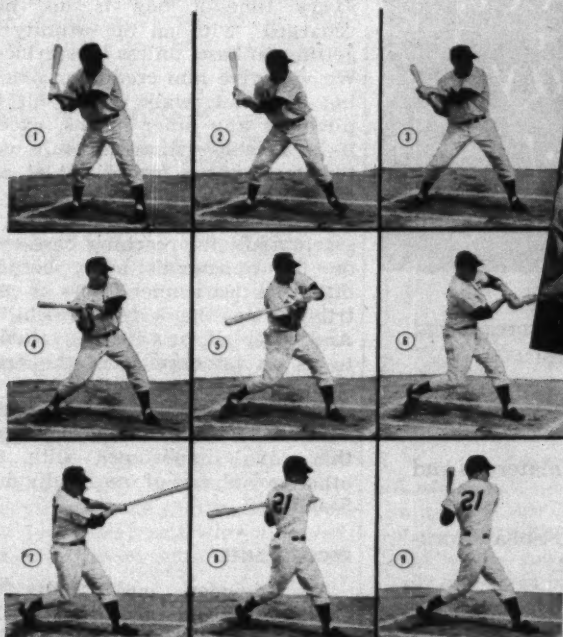
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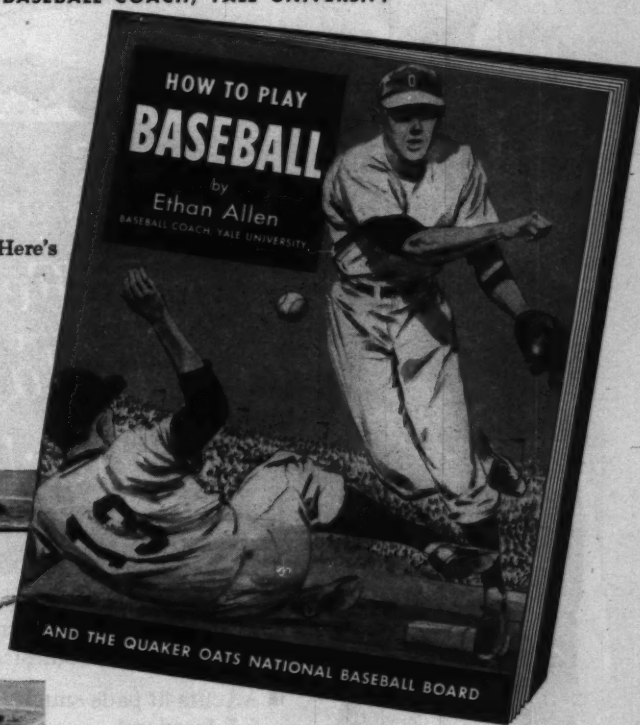
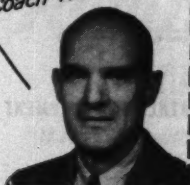


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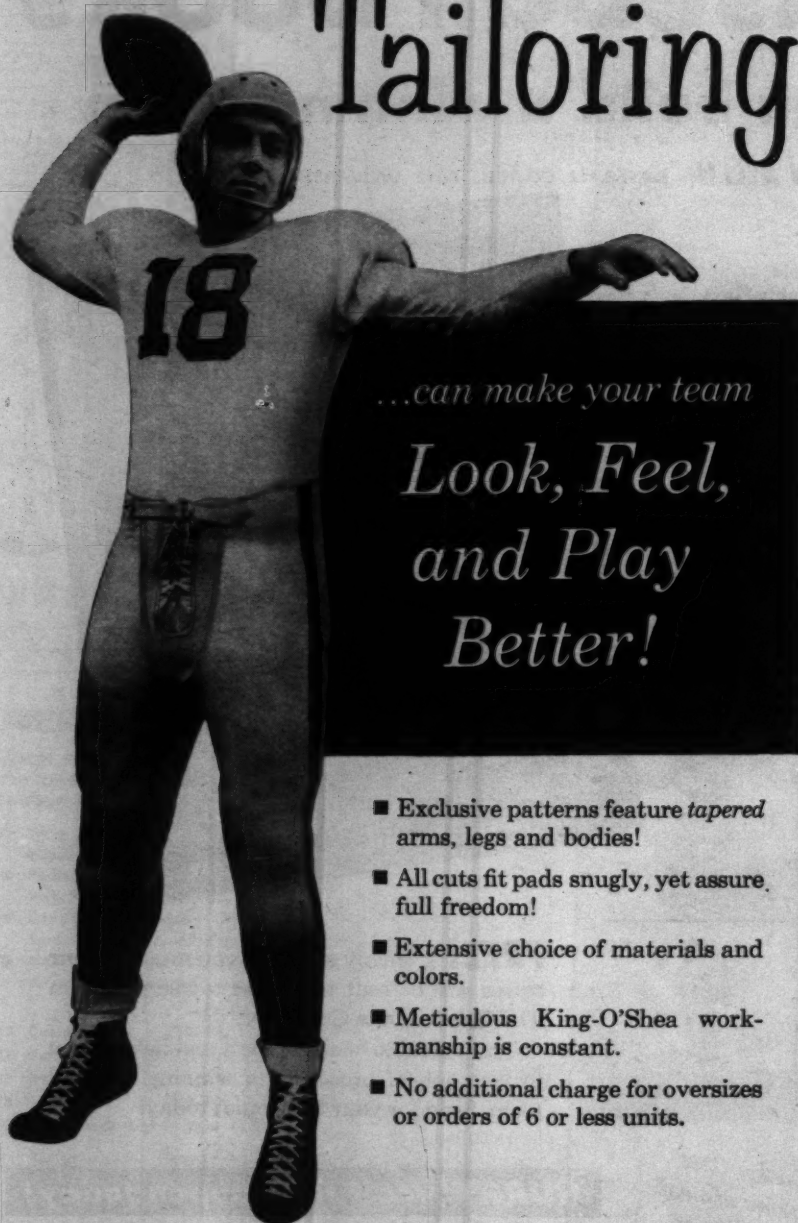
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Evaluating Your Hitters

(Continued from page 11)

batter should hit a home run, he is credited with 3 for 3, and the scorekeeper will mark it this way: X X X (each X being circled).

Over the last two seasons, we've found that the scorekeeper has had no difficulty in recognizing and keeping track of "crucial runs." In emphasizing "crucial runs," we do not lose track of the *actual* runs driven in. However, they're not figured as such in our *Runs Batted In* percentage. If a man is not charged with an "at bat," obviously we do not charge for the opportunity to drive the run(s) in, unless the batter drives in a run(s).

The second percentage we keep is the *Getting on Base* percentage. Every time a boy is up, he's "charged" with an opportunity of getting on base, unless he sacrifices. We will give him credit for reaching on a hit, walk, error, hit by pitch, or any other means, except if he reaches 1st as a result of a teammate being forced out at another base.

We feel that a man should be given credit for reaching base even on the opponent's error because often the fast runner forces or contributes to the error possibility. And, after all, he's just as valuable to us on 1st because of the error than if he'd been walked.

Our third percentage is the conventional *Batting Average*. We give this equal importance with the other two phases of our "Individual Standing."

RECORD SHEET

We develop our "Individual Standing" from our usual hitting and fielding record sheet, which lists each player's complete statistics, including: games, at bats, hits, doubles, triples, homers, total bases, sacrifices, stolen bases, walks, hit by pitcher, runs batted in, batting percentage, plus fielding statistics.

A sample of our "Individual Standing" record is shown in the accompanying table. Take a look at Harkins' *Runs Batted In* figures. It reads 38, 15, 21. That means he had 38 opportunities (includes charges for "crucial runs") and drove in 21 runs (including "crucial runs"). The *actual* number of runs driven in is 15. As you can see, he drove

in a total of 6 "crucial runs"—the difference between 15 and 21.

In Raia's case you can see how we arrive at the *Getting on Base* percentage (36 times reached in 81 opportunities). Incidentally, Raia has been our lead-off man for three years.

We use colored pencils to make our chart clearer and more dramatic. In the accompanying specimen, the circled numbers indicate the boys' comparative positions in each of the three areas.

In the case of *Runs Batted In*, the center figure always represents the actual number of runs driven in, while the last figure constitutes the total number (including "crucial runs"). That's the one from which we derive our percentage.

The *Total Score* or rating of the hitter (first column) is the result of adding up his *Runs Batted In* percentage, *Getting On Base* percentage, and *Batting Percentage*. The boys' names are arranged in order of their *Total Score* and they are also given a number to indicate their comparative position in each of the three individual phases of batting.

POSTED IN TEAM ROOM

This "Individual Standing" is normally posted in our team dressing room twice a week (depending on our game schedule). Obviously, the boys' ratings, or positions on the chart, usually change from week to week. These statistics are kept up to date with little extra effort and are extremely interesting and motivating to our players.

This Spring will mark the third year we have used this system and it has proved of considerable aid. Before I hit upon this idea, we did not know with any degree of accuracy (unless we studied the score-book for hours) just who our most consistent hitters were in all phases of hitting.

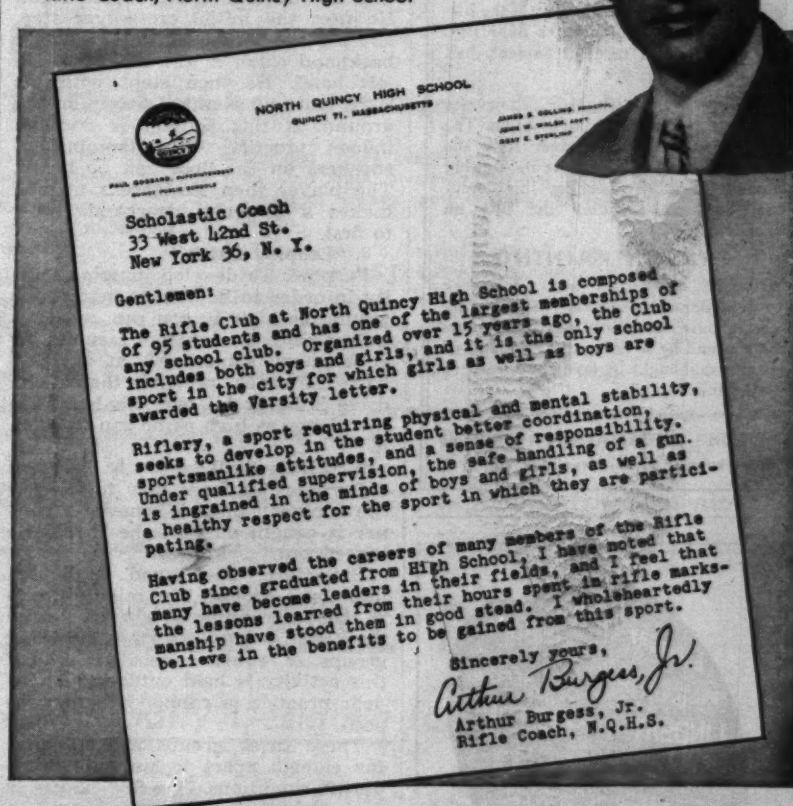
Now, with just a glance at our latest "Individual Standing" chart, we can see who is: driving in the most runs, the greatest percentage of runs, hitting in the "clutch," getting on base the most, etc. In other words, every individual on our squad is compared to his teammates in four areas of hitting percentages.

I studied last year's final "Individual Standing" chart early this Spring and found it was a great help in arranging a batting order for our early games.

In short, our rating system is fair, sound, very useful, and extremely stimulating as a team and individual interest motivator.

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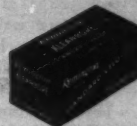
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TRACK TRAINING

Although his record has since been beaten, Bannister remains the first runner to have conquered the four-minute barrier and by so doing to have achieved what was thought by many to have been impossible.

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Baseballized Calisthenics

(Continued from page 20)

with his gloved hand, plant his right foot, and make a long overhand throw. Power is needed for this throw. The infielder cannot make a long lob throw while off-balance and expect the ball to beat the runner to first.

Procedure: Each player imagines he's an infielder going to his right. He uses the initial cross-over step, left leg over right leg, and makes a backhand catch of the ball with his left hand. He then steps with his right foot and plants it firmly on the ground. If this activity is done at indoor practice, the stamping of sneakers on the floor can be heard. The player then straightens up and makes a powerful overhand throw to first.

6. "Leaping Catch."

Purpose: To develop jumping ability in order to be able to get off the ground as high as you can.

Procedure: Each player assumes his anticipatory stance and, at a signal from the coach, pretends that a line drive is being hit over his head. He then leaps as high as he can to catch it.

7. "Pickle Drill."

Purpose: To learn how to execute the rundown play. Whenever a runner is caught off base, he should be tagged out.

Procedure: The squad is divided into three groups. The middle group is the baserunning group, while the two end groups are the infelding groups. A regular baseball is used if this activity is held outdoors. At indoor practice, a rubber ball may be used.

These three groups are stationed far enough apart to simulate "rundown" conditions. The first player in each group steps forward and the rest of the squad observes the play. The middle man is an offensive player who has been picked off base and it is his problem to reach base safely. The two end players are infielders who start this activity near their bases and should put the runner out by tagging him with the ball.

If a player is faking a throw to get the runner to double back into him, he should use a complete throwing motion. A flick of the wrist will not fool the runner. The infielder must follow through with his throwing arm so that the runner doesn't see the ball. A fake throw with a full motion will often make the runner head back to the infielder with the ball.

8. "Name Drill."

Purpose: To acquaint each member of the squad with every other member. Some players are reluctant to introduce themselves or take the initiative in meeting people. As a result, it sometimes takes a long time for

team members to get to know one another. This name drill is an ice breaker.

Procedure: The coach, who should know the name of every member on his squad, calls out the last name of a player. The squad replies by shouting the first name or nickname of this player. This is repeated until everyone's name has been called. This introduces each member of the squad, creates a friendly atmosphere, and helps morale. It also familiarizes the players with each other's voices and thus prevents the team from mistaking an opposing coach's voice for that of a teammate.

When conducting "Baseballnics" indoors, it's sometimes a good idea to have the squad face half-right or half-left (45° angle) in order to utilize all the available area. This will, of course, depend upon the size of both the squad and the gym.

When explaining skills such as batting or throwing, the coach should remember that he's talking to both left-handed and right-handed players and should hence avoid the use of words "right" and "left," if possible.

Such terms as "gloved hand," "pivot foot," and "rear hip" give the player a clearer picture of what to do. Once the activity has been explained, it may be given a name so that it will be immediately recognized at the next practice, as in the case of "Pinwheel" (outfield throwing), "Pickle" (rundown play), and "Cross-Over" (running). Time is a vital element at most practice sessions and a coach shouldn't have to explain the same thing day after day.

"Coaches' Corner"

(Continued from page 32)

land, Germany, Cyprus, Israel, Austria, Iran, Casablanca, and Czechoslovakia.

They speak English to Harry, of course, but in the heat of action they'll spout things like: "Embros, embros, move it up!" or "Buon tiro good shot!" or "Barbara rafteh to kiseh!"—the last being Persian, no less!

After the 1950 Navy team which had won only two of eight games upset Army 14-2, the Middies were paraded through the streets of Annapolis. Seated in the team bus, Coach Eddie Erdelatz spied his 8-year-old son in the crowd. Eddie ordered the bus stopped and had his kid climb aboard.

The boy seemed strangely apathetic to all the exuberance around him. "What's everybody excited about, Dad?" he asked. "Have they forgotten about all those games you lost?"



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For such a man, the Greeks would have awarded, first, the olive wreath in token of a true sportsman's victory. But after that, they could not have resisted breaching the walls of the city, erecting statues in his honor, and even deifying him in some epic poem.

How did Bannister approach his training problem? How did he plan his workouts? The writer has little personal knowledge beyond that already outlined here, but in his considered opinion Bannister must have reasoned about as follows:

Above all else, he realized that he must depend upon himself in all his work. He does get advice from Franz Stampfl, who has achieved fine results with other runners, but he knows himself better than any other person can possibly know him, and therefore should be best able to train himself.

Both in practice and in meets he cannot afford to lean on someone else's authority or discipline. Only complete self-reliance and self-discipline can produce the victory over himself that's inherent in breaking through the four-minute barrier.

Secondly, he knows that running and training for running are both a mental and a physical problem. There can be no doubts or hidden

fears in his mind that such an all-out effort might be harmful in any serious way.

Through his knowledge of medical research, he can obtain unqualified assurance on this point. Through his years of running experience as well as through his studies in the nature of fatigue, he knows that *feeling* tired is not *being* tired and that he can maintain pace and even sprint at the finish no matter how impossible it may seem or how difficult it may be to maintain a sharp certainty of will and purpose.

Above all, he must maintain as much freedom from tension as he can throughout his training and in his competitive efforts.

He has found that he's a somewhat high-strung and nervous type and that worry and anxiety during the days and hours before competition wear out his nervous energies and will-to-win. He must therefore select training methods that afford variety and some measure of interest rather than the methodical and

exact plan of training that others find best.

He does not abstain from all the pleasures of living or follow only the austerities that certain track zealots demand of themselves. To do so would not be in keeping with his nature and would only wear him out emotionally and nervously.

But despite all this, he believes himself to be strong-willed and capable of great concentration of purpose when the chips are down. He can therefore afford to rest during the entire week prior to his greatest effort, without losing the calmness and freedom from tension so essential to maximum effort.

A man who trains every day at a high-effort level, so that it seems a natural part of his everyday living, would feel frustrated with so much rest and such neglect of training and would lose both physical and mental poise. But for him, such rest has proven most effective.

Third, it has been his experience that interval running provides opti-

Breaking the 4-Minute Barrier

(Continued from page 14)

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mum conditioning, physically and mentally, in the shortest period of time. This fact plus its great variability and freedom from boredom makes it seem best for him.

Some use interval running as a test of condition and readiness for competition. They establish exact time limits between runs of an exact distance such as 440 or 220 yards. These rest periods remain the same in length, but the speed of the runs increases with improved condition.

For example, if he were to run 10 quarter-miles with easy jogging between, one every three minutes and each under 60 seconds, he would know that he was ready. Some men compare their times and their feelings week after week and these facts, plus their competitive performances, let them know when peak condition is attained.

But his workouts are too irregular and he'll have to depend upon time trials over three-quarters of a mile for such knowledge. This worked well for him in 1952 and 1953 and should be effective again.

All these thoughts and many, many more must have entered Bannister's head back in 1953. Not that he has been quoted exactly here. As stated earlier, these are but the writer's interpretations. But that Bannister's approach was intelligently individualized in terms of his own abilities and needs is certain.

It was for this reason that Gunder Häegg, world's record holder at 4:01.4 always selected Bannister prior to May, 1954 as the man most likely to break the four minute mile. "He not only knows what he has to do, but also why he's doing it."

Further, these ideas must have been thrashed about time and time again in the bull sessions with Chris Chataway, Chris Brasher, William Nankeville, and many another enthusiastic English runner. If you think American pole vaulters are slightly "tetched" in the head in their excited arguments over poles and hand-grips and weight-lifting and pull-ups, you should sit on the edge of a group of Oxford-Cambridge athletes boiling over stride-lengths and leg lifts and how much and what kind and how often.

No wonder England today possesses more men who have run under 4:10 for the mile than any other country in the world. More power to them; they've earned it and so has Bannister, greatest of all amateur runners, no matter how many better-than-4:00 miles will be run in years to come.



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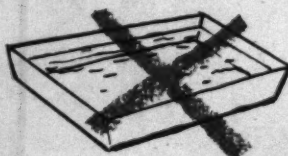
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Wrestler's Card

(Continued from page 24)

phasizes the escape from underneath. The mastery of such techniques probably requires more work than any of the other point-scoring maneuvers. But the importance of learning to roll, recover, and move on the mat cannot be over-emphasized.

This type of work should precede the practice on take-downs in order to prevent accidents stemming from lack of skill in falling and rolling on the mat. In fact, Groups VI and VII should precede Group V for beginners.

Group III ("Reactor" series) continues the emphasis on maneuverability and introduces some counter moves to develop the idea of chain wrestling.

Group IV ("Controller") introduces the standing position with the emphasis on getting control of the opponent to block his attack and set him up for take-down maneuvers.

The take-downs are introduced in Group V ("Tackler") along with some pinning combinations as part of the sequence for the completion of one of the take-downs.

Group VI ("Tripper") provides some take-downs from the rear standing position, while Group VII ("Rider") emphasizes various techniques for the top position, including the use of the legs in riding.

Group VIII ("Defender") takes up the release from some of the special rides, and Group IX ("Dropper") introduces some special take-downs.

The pinning maneuvers are listed in Group X ("Pinner"). Many of them have been previously introduced in completing the sequences for the take-downs and break-downs. These pinning combinations should, however, be rechecked under this group.

Group XI ("Master") is left blank to permit the candidates to list other maneuvers developed during the season.

CHECKING OUT SKILLS

While you can't expect every wrestler to master the 72 moves, a knowledge of them together with performing ability in each is essential for success.

The procedure in checking out these skills motivates the boy to practice the skills and gain competence in them. A simple individual record card (see illustration) is employed for this purpose. Each boy is responsible for recording all the checks on his card, except Check #2, which must be supervised by the head coach or a duly appointed assistant.

After an item has been checked by the coach, the record is transferred to a Progress Chart. The status of each candidate is illustrated on this



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chart by means of a solid bar line extending through the spaces representing the items he has completed. This chart indicates the progress of each candidate in relation to the others and provides an incentive to complete the entire list.

Though each coach will probably want to use his own terminology and select the maneuvers best suited for his particular situation, the following principles should be kept in mind when arranging such a program:

1. Select maneuvers that meet the needs of the candidates as determined by a survey of the competition and a physical examination of the boys.

2. In arranging the progression of the techniques, place the emphasis at first on the physical needs of the individual in terms of strength and endurance in certain vital areas of the body.

3. Introduce moves that involve rolling, recovering, and moving on the mat before working on take-down maneuvers.

4. Provide for counter-moves and sequences to develop the idea of "chain wrestling."

5. Provide an opportunity for the boys to develop some of their own special maneuvers.

Suggested Procedures include:

1. Maintain an alphabetical file of the record cards and have the cards available at every practice.

2. Insist that the candidates check out a certain group of items before permitting them to scrimmage each day.

3. Check out the varsity men first and then use them as instructors for the others. Encourage this cooperative effort on the part of every candidate.

4. Post the list of items in places where they may be easily seen by candidates working on the mats.

"Here Below"

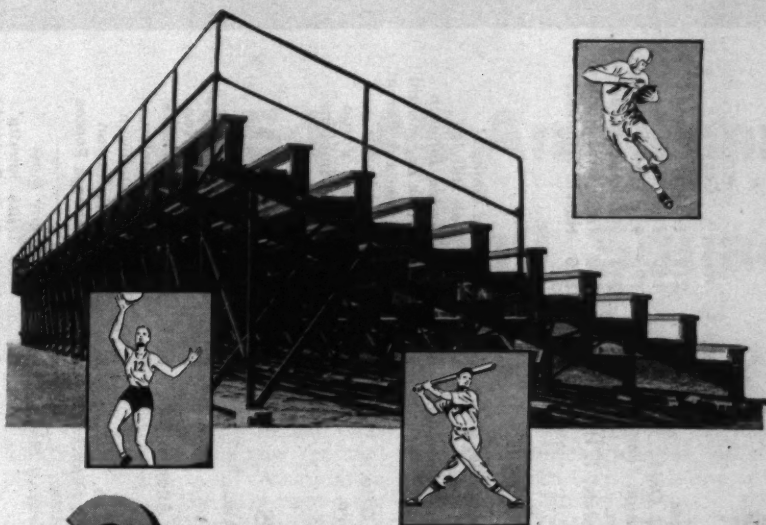
(Continued from page 5)

ran himself out. After collapsing in the arms of several onlookers, he was walked around until he regained his composure.

The next scene shows Bannister in front of a mike. Clustered around him are friends, students, and judges. But Bannister has his arm around a small, smiling old man. Your first thought, of course, is that the old gent must be either his father or his coach. But you must remember this is England—and Roger Bannister.

It turns out that the old boy is the groundskeeper! And Bannister's first thought after his immortal performance is to thank the old boy for having the track in such fine condition!

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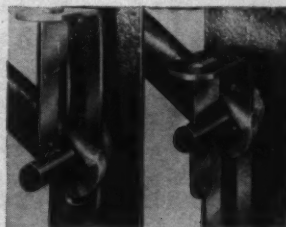
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ENDS

| | Ht. | Coach | Wt. |
|--|------|-------------------|-----|
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| Dave Kocourek (Morton) Cicero, Ill. | 6.5 | W. A. Hedtke | 200 |
| Bob Prescott (East) Sioux City, Iowa | 6.2 | Gene Farrell | 192 |
| Boake Sells (Fort Dodge) Iowa | 6.3 | Forest W. Marquis | 205 |
| Doug Shively (Lafayette) Lexington, Ky. | 6.3 | Tony Salvato | 175 |
| Al Kouneski (Patterson Pk.) Baltimore, Md. | 5.11 | Irv Biasi | 185 |
| Don Overlock (Lowell) Mass. | 6.3 | Ray Riddick | 195 |
| Mike Lee (Central) Lincoln, Nebr. | 5.10 | Bill Pfeift | 168 |
| Jack Griffin (Hamburg) N. Y. | 6.2 | William H. Rodiek | 200 |
| Dean Sharp (St. Mary's) Bismarck, N. D. | 6. | John S. Huber | 196 |
| Darwin Watson (Newark) O. | 6.3 | Joseph M. Carlo | 185 |
| Ross Coyle (Marlow) Okla. | 6.2 | Seville Pickett | 185 |
| Tom Vershinski (Mt. Carmel) Pa. | 6.2 | Mike Terry | 200 |
| Jim Ewing (Beloit) Wisc. | 6. | Ken Currier | 200 |

TACKLES

| | | | |
|--|------|-----------------|-----|
| Dave Singleton (Shades Valley) Ala. | 6.3 | Bill Barrington | 236 |
| Charles McMurry (Whittier) Cal. | 5.10 | Jack Melle | 260 |
| Jack Hogan (Lewiston) Idaho | 6.1 | Bob Williams | 199 |
| Ernie Dijk (Arthur Hill) Saginaw, Mich. | 6.2 | Kurt Kampe | 205 |
| Bronko Nagurski Jr. (Internat. Falls) Minn. | 6. | Frank Larson | 205 |
| John Wooten (Carlsbad) N. M. | 6. | Ralph Bowyer | 205 |
| John Regan (Seneca) Buffalo, N. Y. | 6.3 | John Novak | 279 |
| John Kompara (McKinley) Canton, O. | 6.2 | Wade Watts | 220 |
| Don Lawrence (Cathedral Latin) Cleveland, O. | 6.2 | Dan Mormile | 218 |
| Ras McAdams (Ada) Okla. | 6. | Elvan George | 229 |
| Gil Moore (Shamokin) Pa. | 6.3 | Ray Jones | 200 |
| Charles Horton (Waco) Tex. | 6.1 | Carl Price | 220 |
| Steve Edwards (St. Albans) W. Va. | 6. | Sam Le Rose | 215 |
| Lowell Jenkins (Horlick) Racine, Wisc. | 5.10 | James J. Rice | 240 |

GUARDS

| | | | |
|--|------|----------------|-----|
| Clint Whitfield (Los Angeles) Cal. | 6. | Harry Edelson | 200 |
| Jim Wadlington (Evanston) Ill. | 5.11 | Karl Plath | 180 |
| Buddy Lewis (Mayfield) Ky. | 5.10 | Ray Mills | 178 |
| George Mancini (Malden) Mass. | 5.11 | Eddie Melanson | 185 |
| Stan Renning (Great Falls) Mont. | 5.11 | Bill Swarthout | 190 |
| Pete Ward (Jefferson) Elizabeth, N. J. | 5.9 | Joseph Kania | 190 |
| Bob Taylor (Eastside) Patterson, N. J. | 6.1 | Henry Rumana | 195 |
| Herb Nelson (Duquesne) Pa. | 5.11 | John Donelli | 170 |
| Bob Walker (West) Pawtucket, R. I. | 5.10 | Win Dodge | 170 |
| John Thomas (Abilene) Tex. | 5.9 | Chuck Moser | 192 |

CENTERS (LINEBACKERS)

| | | | |
|----------------------------|-----|----------------|-----|
| Dick Johnson (Jesup) Ga. | 6. | John Donaldson | 245 |
| Bob Nelson (Oak Park) Ill. | 6.4 | Bob Wehrli | 210 |

| | Ht. | Coach | Wt. |
|---|-----|--------------------|-----|
| John Calvin (Hutchinson) Kans. | 6. | Earnest Ireland | 218 |
| Bob Henderson (Cambridge) Ohio | 6.1 | Paul E. Keltner | 180 |
| Ray Mass (Central) Chattanooga, Tenn. | 6.2 | Red Ether | 190 |
| Bob Harrison (Stamford) Tex. | 6.2 | Gordon L. Wood | 215 |
| Earl Bowick (Roosevelt) Honolulu, T. H. | 6. | Ticky Vasconcellos | 200 |
| Dick Teleak (Oshkosh) Wisc. | 6.1 | Harold Schumerth | 190 |

QUARTERBACKS

| | | | |
|--|------|------------------|-----|
| John Hangartner (Hoover) Glendale, Cal. | 5.10 | Ed Siminski | 170 |
| Lee Grosscup (Santa Monica) Cal. | 6.1 | Bob Stillwell | 170 |
| Randy Duncan (Roosevelt) Des Moines, Ia. | 6. | Archie Johnson | 180 |
| Don Allard (Somerville) Mass. | 6.1 | Frank Zammarchi | 180 |
| Fred Hall (Lewiston) Me. | 5.10 | Norman A. Parent | 168 |
| Olen Treadway (Muskogee) Okla. | 5.10 | Paul Young | 160 |
| Tom Secules (Williamsport) Pa. | 6.2 | Tommy Vargo | 180 |
| John Maio (Cranston) R. I. | 5.10 | Ed C. Stebbins | 171 |

HALFBACKS

| | | | |
|--|------|-----------------|-----|
| Tommy Lorino (Bessemer) Ala. | 5.10 | Snitz Snider | 165 |
| Bob Bates (El Dorado) Ark. | 5.11 | Garland Gregory | 175 |
| Dick Bass (Vallejo) Cal. | 5.9 | Bob Patterson | 170 |
| Lester Simerville (Northside) Atlanta, Ga. | 5.11 | Wayman Creel | 175 |
| Bob Zeman (Wheaton) Ill. | 6.1 | Bob Horsley | 182 |
| Ed Fritz (Whiting) Ind. | 5.10 | Ray Gallivan | 192 |
| Dick Gay (Byrd) Shreveport, La. | 6.1 | Jack Rowan | 175 |
| Bob Blakley (Central) St. Paul, Minn. | 6.1 | George Rascoe | 192 |
| Roger Nelson (Albert Lea) Minn. | 6.2 | Ray Moss | 190 |
| Hank Kuhlmann (Webster Groves) Mo. | 6.1 | Nick Sabetto | 185 |
| Bill Sandie (Mephram) N. Y. | 5.11 | Duke Burkholder | 165 |
| Gene Mikelonis (DuBois) Pa. | 5.11 | Jerry Bolin | 160 |
| King Dixon (Laurens) S. C. | 5.8 | Tom Brixey | 170 |
| Bobby Price (Sparta) Tenn. | 5.11 | Norman Mayer | 180 |
| Luther Carr (Lincoln) Tacoma, Wash. | 5.11 | | |

FULLBACKS

| | | | |
|--|------|-----------------|-----|
| Jim Henander (Louisville) Colo. | 5.11 | | 170 |
| Nick Pietrosante (N. Dame) W. Haven, Conn. | 6.2 | John Janenda | 210 |
| Jack Delveaux (Fenger) Chicago, Ill. | 6.2 | Chuck Palmer | 210 |
| Dick Williams (Ann Arbor) Mich. | 6. | Hank Fonde | 205 |
| Robin Hill (Las Vegas) Nev. | 6. | Angelo Collis | 195 |
| Bill Strumke (Peekskill) N. Y. | 6. | John Devans | 195 |
| Homer Floyd (Massillon) Ohio | 5.10 | Tom Harp | 160 |
| Joe Belland (Clairton) Pa. | 5.11 | Neil Brown | 180 |
| Don Hafer (Schuylkill Haven) Pa. | 5.10 | Wm. K. Stauffer | 195 |

1954 All-American High School Football Squad

SCHOOLBOY stars from 36 states and the territory of Hawaii stud the fourth annual All-American Football Squad picked by *Scholastic Coach*.

In all, the Squad embraces the 78 greatest players brought to our attention last fall. No claim is made for 100% accuracy. Or even 50%. It's impossible to winnow the 11, 55, or 155 "best" players from the 650,000 who play the game. But we don't have to apologize for our selections. Every one of them is a great player who rates the highest honors.

The great football state of Pennsylvania tops the honor Squad with seven selections, followed by California with six, Ohio and Illinois with five each, and New York with four. Six other states—Iowa, Massachusetts, Minnesota, Oklahoma, Texas, and Wisconsin—placed three men apiece.

Heaviest man on the honor Squad is husky John Regan, a 6-3, 279-pound tackle from Seneca H.S., Buffalo, N.Y. Tied for "lightweight" honors at 160 pounds are King Dixon, flashy halfback from Little Laurens (S.C.) H.S., and Homer Floyd, fullback of the famous Washington Tigers of Massillon, O.

Perhaps the greatest runner in big-school competition is the great Dick Bass, the 170-pound ball of lightning from Vallejo (Calif.) H.S. He averaged four touchdowns and four extra points a game, plus 15 yards per carry!

Among the smaller schools, the statistics star of the year was Bobby Price, halfback of Sparta (Tenn.) H.S., who gained the astonishing total of 2,650 yards! His 224 points also set a modern scoring record for the state.

For the fourth straight year, Santa Monica (Calif.) High placed its quarterback on the all-star squad. This year it was Lee Grosscup, a 6-1, 170-pound passing whiz. Last year it was Jackie Douglas, who starred on the 1954 Stanford frosh

team. In 1952 it was the sensational Ronnie Knox—who's going to be All-American at UCLA in another year or two. And in 1951 it was Sandy Lederman, who now "passes" miracles at the U. of Washington.

Quite a few of the 1954 stars come from famous families. Doug Shively (E) is the son of Bernie Shively, athletic director at the U. of Kentucky. Mike Lee (E) is the son of the U. of Nebraska's new track coach.

Dave Sington (T) is the proud progeny of Freddie Sington, great Alabama All-American tackle of yesteryear, while Bronko Nagurski, Jr. (T) . . . well, we don't have to tell you whose son he is.

Players with famous brothers include Dick Teteak (C), whose brother, Deral, is a lineman with the Green Bay Packers; and Pete Ward (G), whose two brothers were All-American linemen, one at Maryland and the other at Columbia.

The All-American Squad is listed on the facing page alphabetically by state.

A LOOK AT THE RECORD

How accurate are our All-American selections? The best way to answer that question is to refer back to our first Squad—the 1951 group—and see how well they're faring in college ball. We picked 66 boys that year and judging by their performances we have every reason to be proud of our selection methods.

A brief run-down by positions follows—remember, now, since these boys graduated in 1951, none of them can be any further advanced than juniors.

ENDS: Jim Freeman (Iowa) was the boy who booted both extra points in the 1953 thriller against Notre Dame. He's an outstanding member of the Iowa line. Joe Tumminello (L.S.U.) is all-Southeastern Conference.

TACKLES: Herb Gray (Texas), Joe Krupa (Purdue), Earl Monlux

(Washington), and Harlan Wilson (Iowa State) have made it big.

GUARDS: Franklyn Brooks (Georgia Tech) received considerable All-American mention last season, while Art Demmas is one of the keys of the Vanderbilt line.

CENTERS: John Tatum (Texas) and Ken Vargo (Ohio State) have received much acclaim. Other starters include Doug Knotts (Duke), Bill Nieder (Kansas), and Chuck Stone (Washington State).

QUARTERBACKS: Bill Kriete-meyer has starred for three seasons at Vanderbilt. Sandy Lederman has been sensational at Washington. Ditto Bart Starr at Alabama. Earl Morrall is Michigan State's first string field general, while Billy De Graaf is solidly established at Cornell.

BACKS: Royce Flippin is a sensation at Princeton, Don King stars at Clemson, Homer Jenkins is a top Big Seven ground gainer at Colorado, and Delano Womack is a great back at Texas. Dave Rogers (Indiana) is one of the Big Ten's best, and Neil Hyland is a regular at Penn. Others who hold down regular berths include Dick Pavlat (Oregon), Bob McKiever (Northwestern), John Lewis (Michigan State), Rusty Gunn (SMU), and Bill Murakowski (Purdue).

You could get just as good a team, if not better, from our Honorable Mention list of that season: Pat Uebel (Army), Tony Branoff (Michigan), Eagle Day (Mississippi), James Sides (Texas Tech), Jim Troglio (Northwestern), Dic Fitzgerald (Notre Dame), Lennie Moore (Penn State), Emerson Wilson (Colorado), Preston Carpenter (Arkansas), and Mickey Bates (Illinois) would be your backs!

Nick Germanos (Alabama) would be the leading end candidate, while tackles would be Hardiman Cureton (UCLA) and Phil Tarasovic (Yale). Glenn Tunning (Pitt) and Calvin Jones (Iowa) are among the guards.



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The Two

RULE 6, Section 2 of the rule book on "The Mechanics of Starting" clearly states that the starter must hold the athletes in the "set" position for at least two seconds before discharging his pistol. To be specific: "... after an interval of at least two seconds (after the 'set' command), when all are still and motionless, he shall fire the pistol."

It seems to me that the rules book is not suggesting but *ordering* starters to withhold the firing of their pistols until there has been a "pause" of two seconds in the "set" position.

Now, the writer has worked enough meets to know full well that a starter cannot *always* start a field of runners right at the two-second mark. Nor will he *always* be able to get these runners away with a variance of .1 or .2 seconds. I feel that a person whose concentration is only on the two-second hold will overlook other important aspects of starting procedure. But I'm positive that one can and should be enough two-second conscious to have all his starts bordering on that time interval.

I don't think for a minute that a starter should be a two-second holder only because the rule book so indicates. I'm firmly convinced that religious adherence to this time interval will do more to build confidence and efficiency than any other one thing.

At one of our larger meets, I once overheard a starter remark: "I don't care whether I start 'em at 1.5 or 2.0 seconds, just so I get 'em started in good order." And he was so right. But this fellow had quite a few false starts and seven or eight recalls in that particular meet. Top-flight starting, in my opinion, would have produced not over one or two of these "let's try it again" attempts.

I do not feel there's too much wrong—other than the fact that one is going against the rules—with starting a group of runners at 1.2 to 1.6 seconds IF the starter can get the competitors out of their marks regularly without rolls and with a minimum of false starts and recalls. I believe that anyone who is successfully starting runners that quickly should be congratulated.

I know that I'm unable to do this. And to be frank, I haven't observed

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CEDAR RAPIDS, IOWA

By PAUL R. KELLER, Track Starter, Delaware, Ohio

Second Hold in Track Starting

any other starters getting away with it either. There are "quick" starters—far too many of them—but they're having their troubles with the boys at their marks—troubles they can avoid by sticking to ALL the accepted procedures of proficient starting.

These "quick" trigger-pullers not only make life miserable for both themselves and the athletes, but also for capable two-second starters unfortunate enough to follow them with the same group of boys.

I recall one important night high school relay meet I worked a year ago where the prelims had been started by another starter (not a good practice but in this instance unavoidable)—a fast starter. The finalists in the 100-yard dash had been warned that they'd be held considerably longer than during the afternoon prelims. But most of the boys had been exposed to the modified "machine-gun" type of start quite frequently during the season and had built up mental and physical responses that couldn't be altered so suddenly—at least not until they could see an immediate need for an adjustment in the length of their "hold" in the "set" position.

Since some of them didn't know I was a two-second starter, they were ready to go real soon after the "set" command. In three trials, four boys picked up one false start each.

Fortunately, they all held very well on the fourth attempt and an excellent start was forthcoming. From that point on, there were no false starts or any recalls. The same field of sprinters who had been so unsteady in the 100 started beautifully the first time in the 220. Several of them remarked about how they could "relax" more at the start with the longer hold and that they didn't have to worry about a quick, irregular gun.

The very fact that I run into situations like this every track season and that after the first race or two I have practically no trouble at all, is proof enough that it DOES pay to hold the runners close at two seconds and that these competitors DO like and CAN start with the rule book's mandatory interval.

Starters who shoot "quick" guns make their work, and that of others, more difficult by developing "guessers" out of the athletes. A "guesser," before he knows it, becomes a "roller" and then everyone's in trouble. It just isn't right to permit incapable starters to practically compel well-trained athletes to alter their starting style in order to "protect their interests."

A starter asks for trouble every time he fires his pistol more than a very few tenths under the two-second standard. Most athletes are smart cookies. They can learn to do things the wrong way just as readily as they can the right way. It's up to the starter to show, by the quality of his work,

the proper way for the athletes to respond at the starting line.

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interval between 1.7 and 2.4 seconds, the very best of starts being from 1.8 to 2.2 seconds. These findings fit in pretty well with the author's.

One of the roughest but most interesting meets I work each spring is the famous Ohio Wesleyan Relays for Class A and Class B high Schools. The fields are large, most races are staggered, and the boys come from all over Ohio where they've been exposed to all kinds of starters. In some instances, especially if the weather's been unusually bad, some of the athletes have had little work on starting.

For these reasons, I try to stick as close as possible to a two-second hold, thereby reducing the chances for trouble in a meet of this type.

I always have a qualified individual time all my starts in this and many other meets, so that I'll know exactly what I'm doing in regard to the proper timing interval. I had a very negligible amount of trouble in the 1954 Ohio Wesleyan Relays using the following timing (holds): 3 races at 1.7 sec., 4 at 1.8 sec., 8 at 1.9 sec., 8 at 2.0 sec., 8 at 2.1 sec., and 3 at 2.2 sec.

The average starting time for these 34 races was 1.98 seconds with the median being an even 2.0 seconds. Of course this nearness to rule book starting interval isn't, in itself, a sure fire indication that one has turned in an excellent starting job. To me, the determining factor in superb starting is the number of false starts and recalls you have and whether or not any of the athletes is getting by with a roll.

An analysis of 72 sprinting starts at Helsinki indicates that 58 races got underway between 1.7 and 2.4 seconds, while 42 races found the sprinters shot off their marks between 1.8 and 2.2 seconds. In the 100-meters final, the time interval was 1.9 seconds for an excellent start.

At these same Games, it was found that the competitors took from .5 to 1.1 seconds from the word "set" to reach a position of momentary steadiness in the "set" position. The starter did not fire his pistol then, as competitors must have time to concentrate in readiness for the sound of the pistol shot and also because the starter requires time to see that all are motionless and that he's in full control.

I believe that men who start most of their races before 1.7 seconds try to beat the athletes and normally are not in control of the situation. The athletes are controlling the starters and the latter fire "in desperation," hoping the boys won't "beat the gun." Every time these starters shoot a "quick" gun they're creating situations that will become more and more difficult to control.

I don't think a starter should ever attempt to "fool" the boys by shooting a "quick" gun in a desperate effort to get out of a jam—a jam that he might or might not be responsible for. He might be able to get any one race off in fairly good order and thus extricate himself from his difficulty. But

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he'll definitely create a "distrust of starter" atmosphere that will haunt him in future meets. You must be fair with the boys if you expect cooperation and results at the starting line.

It often takes a lot of courage and a tremendous desire to pursue a two-second hold when starting a poorly trained or a poorly prepared group of athletes. Certainly not standard procedure but just as certainly productive of results, is my once-in-a-season policy of giving a field of runners a practice start where I felt the conditions warranted it.

It's amazing how many runners, and starters, have just a vague idea as to how long a second is. When I was a youngster—and that wasn't yesterday—I always had the notion that seconds went by as fast as you could count. Not until I took up track coaching and track starting did I come to a full realization as to how long two seconds are.

I found out by getting out the stopwatch and checking myself. There's no substitute for "getting on the two-second starting beam" than to get out a stopwatch and time yourself over and over again until you've established a more-or-less automatic timing interval.

I believe that track starting is improving right along, but I just as firmly believe that we have a long way to go before we'll consistently be getting the type of starting we need. Out of fairness to the athletes and their coaches, I feel it behooves all starters to take their work a little more seriously and to prepare themselves thoroughly so that they can take pride in the kind of work they're doing.

I witnessed three college 100-yard dash championships last year in each of which there were several false starts and a pair of recalls. All of the recalls came in starts that saw the starter hold the runners in the "set" position less than 1.7 seconds.

If the officials had held the athletes closer to the two-second mark, the offending runner or runners would have then received a false start—compelling them to exercise cautiousness and thus increase the chances of getting away on the next attempt. As it were, ALL of the sprinters paid the price of two unnecessary starts with the accompanying nervousness, tensions, and fatigues.

I considered last year as being one of my best in this interesting and challenging starting work and I'm certain that my being a bit more two-second minded was the one single factor that helped most.

In 21 high school and college meets, I had just 11 recalls. Ten of these came in high school meets where the athletes do not always receive the proper training and have not had too much experience in starting procedures.

In 11 college meets, I had a single recall and very few false starts. The one recall came in my first outdoor meet in the 220-yard low hurdles where one boy rolled by about a foot.

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**HIGH SCHOOL
BASEBALL, 1955**

CONTINUATION of the Joint Baseball Committee Project has been approved by Professional Baseball and a healthy interest in the sport is anticipated.

The new edition of the **Baseball Rules Book** in technicolor splendor rushed the season by appearing during the holiday season. The new Case Book came with the little chap in loincloth and the Examination Set has grown to a double-barreled threat to the unwary laggard who's going to study his rules next week.

The **Motion Picture Program** will center around continued use of the picture, *Modern Baseball*, which was made the year before last, and the film, *World Series of 1954*, prints of which are purchased by the National Federation and made available to those state associations which have chosen to set up distributive machine.

1955 Rules Revisions will make little, if any, noticeable change in playing procedures, but they're a significant contribution to the development of a simplified and logical code of rules. Major revisions follow:

1. A revision of the definition of a force play states when the force ends. For example: If R-2 is forced from 1st base, the force ends as soon as he has touched 2nd base. If subsequently R-2 should be tagged out when he overruns or overslides after touching 2nd, a run which is scored before the putout is counted. This doesn't change the well-established rule about a batter-runner not being credited with a 2-base hit if he's put out in an overslide after touching 2nd. In this case, the force ends when the runner touches 2nd but he's still credited with just a single.

2. The use of a head protector is recommended for every batter.

3. The entire rule concerning batting out of order has been revised along the lines suggested in the optional rule of last year. The irregularity is not an appeal play and the official scorer or the umpire or any player is authorized to call attention to it. If a batter is discovered out of turn after he's received one or more pitches, the player who should have batted is declared out immediately and the proper batter then begins to bat with no balls or strikes. If several players bat out of order before discovery so that a player's time at bat comes while he's on base, such player is declared out as a batter, with the out being credited to the catcher, but the player remains on base. As in the past, if discovery of the irregularity is made after the wrong batter has advanced because of a hit or otherwise and the discovery is made before a pitch to a subsequent batter, the advance of any runner which is due to the wrong batter becoming a batter-runner is cancelled.

4. All sections related to any type of interference by the batting team have been harmonized by slight revisions in several sections related to this infraction. The rules now indicate how far a runner may advance in cases where a teammate interferes with a batted or thrown ball. In some cases, the number of bases to which he may advance is measured from the base he occupied at the time of the pitch and in other cases, it is measured from the base he occupied at the time the ball became dead because of interference.

5. The rules concerning the number of bases awarded for certain acts such as a batted ball going over the fence or an overthrow into the bleachers are revised for clarity and complete coverage. Related revisions indicate the proper procedure when a spectator in the stand or bleacher reaches into the field to interfere with a batted or thrown ball. This applies to interference with a foul fly by a spectator in the stand and also to a fair fly ball which is touched by a spectator in an outfield bleacher.

6. Other slight revisions are primarily for clarifying disputed sections. An illustration is the situation in which a runner misses a base and then calls time when he reaches the next base and after he notes that an appeal will probably be made at the missed base. The revised rule will indicate that a runner may not return to such base during dead ball so that even if the umpire inadvertently calls time, the runner will still be declared out because he cannot return to the missed base. As in last year's rule, a runner who is awarded a given base because a batted fair ball goes over the fence or because there is an overthrow into a stand, will not be declared out if he circles the intervening bases but inadvertently fails to touch one of them.

The high school code will differ slightly in the declining of a penalty for a balk. Where the pro rule calls for a conference with the coach to determine whether he desires to accept or decline the penalty, the high school code specifically states the circumstances under which the penalty is accepted or declined.

—National Federation

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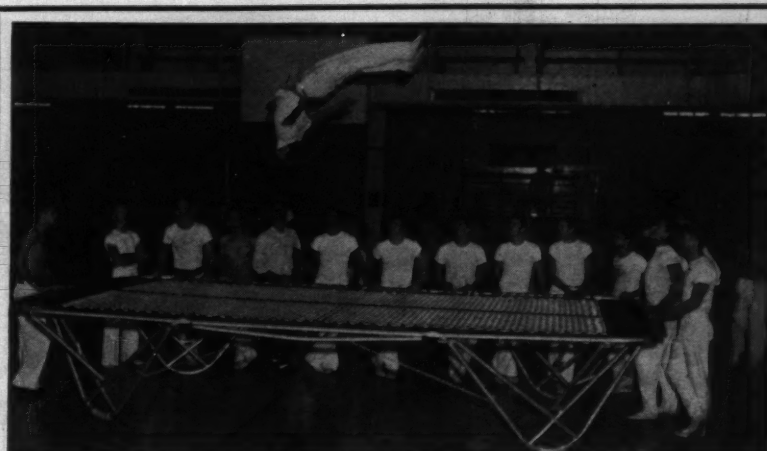
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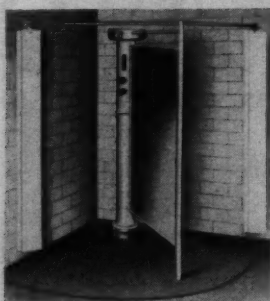


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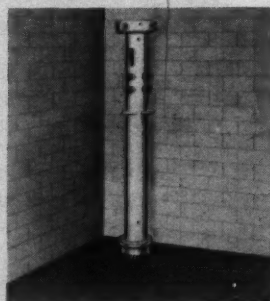
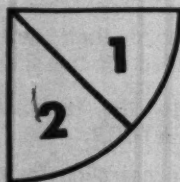
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(Continued from page 28)

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9a: Holding a dumbbell in each hand at side, standing erect, (1) raise arms sideward shoulder level, (2) lower arms to side, (3) repeat 5 to 10 times.

9b: Lying on back, holding dumbbell in each hand, arms spread sideward, (1) raise arms forward overhead, (2) lower arms sideward and downward to floor, (3) repeat 5 to 10 times.

It is recommended that the weight-lifting practice be done on alternate days. If lifting is done each day, muscle soreness will develop.

Lifting should be done with quickness of movement in mind. Rapidity of movement against the weight's resistance is important. Repeat each movement a minimum of five times and a maximum of ten. When the movement can be repeated more than ten times, the resistance should be increased by adding weight. Remember, repetitions will develop endurance, exercising against increased resistance will develop strength.

In handling heavy weights, be careful of technique. Injury might occur where a heavy weight is lifted improperly. Feet should be spread shoulder width for all lifting.

The bar should be grasped about shoulder-width apart so that when held in front of the thighs the palms face inward. This is called the regular grip. When the palms face away from the body, it is a reverse grip.

¹ Karpovich, Peter V.: *Physiology of Muscular Activity*, W. B. Saunders Company, Philadelphia and London, 1953.

² Doherty, Ken: *Modern Track and Field*, Prentice-Hall, New York, 1953.

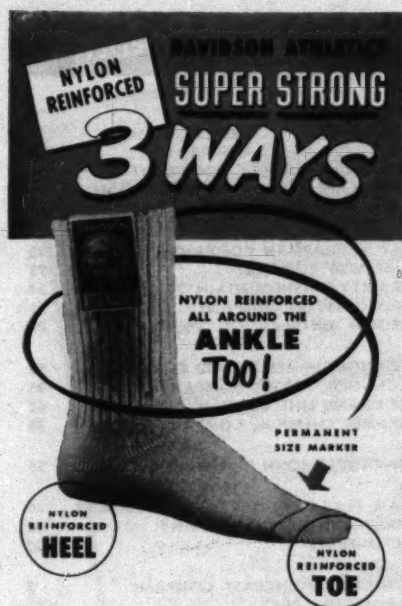
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February, 1955

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